

# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

(incl. Statistics)

2248. Adams, D. K. William McDougall. *Psychol. Rev.*, 1939, 46, 1-8.—In spite of the wide range of his contributions, both to the science of psychology and to other fields, McDougall has been mainly unfortunately associated in people's minds with his systematic development of the instinct theory. Yet he was really the most empirical of systematic theorists, but recognized the need of conceptual constructs in an explanatory science. He felt the need of a complete psychology which need exclude no field. His pessimism arose from the failure of his aim to make a science of psychology. He was hospitable to new ideas and attacked problems like Lamarckianism regardless of their unpopularity. Psychological thinking dominated every moment of his life. Portrait.—A. G. Bills (Cincinnati).

2249. Allen, H. V. A theorem concerning the linearity of regression. *Statist. Res. Mem.*, 1938, 2, 60-68.—Given the two random variables  $x$  and  $y$  with the structure  $x = mD + A$  and  $y = nD + B$ , where  $D$ ,  $A$  and  $B$  are independent variables and  $m$  and  $n$  are unknown constants, if the first two moments of  $B$  and all the moments of  $D$  and  $A$  are finite, then the necessary and sufficient condition for the linearity of regression of  $y$  on  $x$ , whatever the values of  $A$  and  $B$ , is that both  $D$  and  $A$  shall be normally distributed.—N. R. Bartlett (Brown).

2250. Baader, T. H. Zwaardemaker, Nachruf und Verzeichnis sämtlicher Veröffentlichungen. (H. Zwaardemaker. Obituary and list of collected publications.) *Arch. ges. Phonet.*, Abt. 1, 1938, 2, 248-254.—P. L. Krieger (Leipzig).

2251. Berman, A. An inexpensive, variable multiple-choice maze. *Amer. J. Psychol.*, 1939, 52, 113-114.—D. E. Johannsen (Skidmore).

2252. Boege, —. Einführung in die Psychologie. (Introduction to psychology.) Berlin (W35): Kammergesellschaft Verlagsgesellschaft Gersbach & Co., 1937. RM. 2.85.—R. R. Willoughby (Brown).

2253. Burke, K. Twelve propositions on the relation between economics and psychology. *Sci. & Soc., Lond.*, 1938, 2, 242-249.—"The following propositions briefly state the approach exemplified in my recent work, *Attitudes Toward History*. . . . They are an attempt to codify my ideas on the relation between psychology and Marxism."—L. L. Child (Yale).

2254. Burt, C. Factor analysis by sub-matrices. *J. Psychol.*, 1938, 6, 339-375.—The writer describes his method for factorizing correlations between dis-

continuous traits, which he has found equally successful with discontinuous groups of persons, and then he compares his method with that of least squares, with the bifactor method (Holzinger) and with the centroid method with rotation (Alexander). On the grounds of his theoretical comparisons, the writer concludes that "there can be no reason why the methods of Holzinger and of Alexander should not be applicable to correlations between persons as well as to correlations between tests." Empirical results obtained by the three methods agree more closely for persons than for tests. "A group factor method, of whatever kind, however, is strictly applicable only when the variables fall into more or less discontinuous groups."—J. McV. Hunt (Brown).

2255. Crane, G. W. *Psychology applied*. (Rev. ed.) Chicago: Northwestern Univ. Press, 1938. Pp. xii + 631. \$4.00.—The headings of chapters are: methods of motivating human beings; the psychology of learning and memory; increasing human efficiency; individual and sex differences; the effect of suggestions on behavior; the psychology of improving your personality; the psychology of selling your product; the field and function of advertising; personnel administration; the psychology of music and morale; the psychology of the public platform; the psychology of writing and of art; child psychology; psychology applied in education; psychiatry and mental hygiene; psychology applied in the professions. New psychological exhibits include an introvert-extravert test, a test of sales and advertising ability, a test of reliability of observation, a specimen letter of application for a job, a parental rating scale, a test for employers, and a consumer survey among patients of professional men.—P. S. de Q. Cabot (Simmons).

2256. David, F. N. Limiting distributions connected with certain methods of sampling human populations. *Statist. Res. Mem.*, 1938, 2, 69-90.—A generalization of the theorem of Laplace is proved. Use of this theorem shows that the distribution of the means of samples drawn without replacement from a finite population tends to be normal as the sample and the population are indefinitely increased in size. The result is applied to find the limiting distribution of the weighted mean of a sample taken from a finite population with random weights.—N. R. Bartlett (Brown).

2257. David, F. N., & Neyman, J. Extension of the Markoff theorem on least squares. *Statist. Res. Mem.*, 1938, 2, 105-116.—A generalization of Markoff's theorem is presented. For those cases to which the theorem is applicable, formulae are demonstrated which solve the problems of the best linear

unbiased estimate of a particular collective character of the populations and of the variance of this character.—*N. R. Bartlett* (Brown).

2258. Delgado, H. [The psychology and psychopathology of self-awareness.] *Arch. chil. Criminol.*, 1937, 1.—Normal self-awareness is characterized by: (1) distinction between awareness of self and that of others, or the exterior world; (2) conviction of a personal existence; (3) apperception of the relationship of the exterior world to corporal sensations; (4) intuition of conservation of our self; (5) awareness of one's own activity; (6) awareness of autonomy; (7) sense of personal unity; and (8) intuition of continuity of the personal existence. The abnormalities of the ego, or self-awareness, include: (1) lack of distinction between self and exterior world; (2) belief in personal non-existence; (3) depersonalization; (4) transformation of the personality; (5) loss of feeling of activity and of the belief in free choice; (6) belief in the possession of the personality by other forces; (7) duplication, or awareness of different selves at the same time; and (8) alternative personality, double or multiple. The genetic aspect of self-awareness is discussed.—*D. G. Ryans* (William Woods College).

2259. Dewey, J. Intelligence in the modern world; John Dewey's philosophy. [Ed. by J. Ratner.] New York: Modern Library, 1939. Pp. 1092. \$1.25.—A comprehensive selection of John Dewey's writings representative of the whole range of his work, together with a contribution specially written for this volume and material from a new book not yet published.—*R. R. Willoughby* (Brown).

2260. Diamond, S. The typewriter as an aid in item analysis. *Amer. J. Psychol.*, 1939, 52, 111-113.—*D. E. Johannsen* (Skidmore).

2261. Diemer, J. H., & Klaauw, C. J. v. d. [Eds.] *Bibliographia biotheoretica*. Vol. 1. Leiden: E. J. Brill, 1938. Pp. xii + 236. 11 guilders.—This volume covers the titles (4802) published from 1925 through 1929 in the field of theoretical biology. A special chapter is devoted to human and animal psychology and ethology, containing 424 titles.—*C. J. van der Klaauw* (Leiden).

2262. Dohlman, G. Demonstration einer Camera zu stereoskopischen farbenphotographischen Aufnahmen während des Otoskopierens. (Demonstration of a camera for taking stereoscopic colored photographs during otoscopy.) *Acta oto-laryng.*, *Stockh.*, 1938, 26, 601-607.—*E. M. Pilpel* (New York City).

2263. Feller, W. Notes on regions similar to the sample space. *Statist. Res. Mem.*, 1938, 2, 117-125.—Examples illustrate that in many cases there exist either no regions or regions of a trivial category, similar to the sample space of an elementary frequency function which depends on some arbitrary parameters.—*N. R. Bartlett* (Brown).

2264. Freeman, E. Principles of general psychology. New York: Holt, 1939. Pp. xiii + 530. \$2.75.—The volume is presented as an eclectic

treatment of the problems of psychology. Gestalt interpretations have been resorted to frequently, especially in discussions of learning and perception. Attention is called to epistemological implications of psychological facts wherever possible. Subject matter is divided into two parts, under the titles "Principles of Behavior" and "Principles of Perception." Chapter headings: orientation; heredity and environment; intelligence; organically determined differences; racial and cultural differences; socio-economic status; language and number; science, technology, and invention; social conditioning; feelings; emotions; motivation—organically determined; motivation—socially determined; personality; basis of learning; process of learning; general characteristics of perception; simpler visual perceptions; complex visual perceptions; organization; other modalities of perception; imagery; and thinking.—*D. G. Ryans* (William Woods College).

2265. Giscard, P., Montpellier, G. de, Besson, J., Stocker, A., & De la Vaissière, J. Psychologie et psychologues. (Psychology and psychologists.) *Arch. de Phil.*, 1937, 13, Cahier 3. Pp. 138. 40 fr.—*G. Goldman* (Sorbonne).

2266. Hattingberg, H. v. Bericht über den X. Internationalen Arztlichen Kongress für Psychotherapie in Oxford. (Report on the tenth International Medical Congress of Psychotherapy at Oxford—July 29-Aug. 2, 1938.) *Zbl. Psychother.*, 1939, 11, 1-6.—*M. E. Morse* (Baltimore).

2267. Heinrich, W. Travaux du Laboratoire de Psychologie expérimentale de l'Université de Cracovie. (Work of the experimental psychology laboratory of the University of Cracow.) (Vol. 2.) Paris: Alcan, 1938. Pp. 241. 40 fr.—This collection includes reports of experiments which were designed to show correspondence between two sets of phenomena: qualitative facts of consciousness, results of the subjective analysis of the individual consciousness; and physiological activities, which are one element of objective investigations. A correspondence would imply that the law of causality applies to qualitative facts as well as to objective phenomena.—(Courtesy *Année psychol.*).

2268. Hsu, P. L. Contribution to the theory of "Student's" *t*-test as applied to the problem of two samples. *Statist. Res. Mem.*, 1938, 2, 1-24.—Possibilities that two test criteria based on the square of *t* may be used to test two of the three hypotheses necessary to determine whether two unconnected normal populations are alike, when given a sample taken from each, are surveyed. The only positive conclusion drawn is that, in the case where the sample sizes are the same, the first test may be used in testing the second hypothesis, namely, the hypothesis that the means of the populations are the same while the alternatives specify nothing except that the means are not the same.—*N. R. Bartlett* (Brown).

2269. Hsu, P. L. On the best unbiased quadratic estimate of the variance. *Statist. Res. Mem.*, 1938, 2, 91-104.—The best unbiased estimate of the

variance in the population which forms the basis of the Markoff theorem of linear estimation proves to be only under certain conditions the quadratic form which that theorem presents. For cases where these conditions are not met a method is given for finding the best quadratic estimate.—*N. R. Bartlett* (Brown).

2270. **Hull, C. L. The problem of stimulus equivalence in behavior theory.** *Psychol. Rev.*, 1939, 46, 9-30.—An answer to Tolman's objection that Hull's system contains no explanation of stimulus equivalence and Adams' criticism that Hull has given no definition of "stimulus." The three mechanisms mediating stimulus equivalence are: (1) the partial physical identity of the stimulus compounds; (2) primary or physiological generalization; and (3) secondary or indirect generalization through the arousal of a reaction previously conditioned to the same stimulus continuum. "Stimulus" is defined in terms of physical energies, such as light waves, etc. It is thus differentiated from "physical object," which has been confused with it.—*A. G. Bills* (Cincinnati).

2271. **Judd, D. B. Changes in color temperature of tungsten-filament lamps at constant voltage.** *Bur. Stand. J. Res., Wash.*, 1936, 17, 679-695.—"Seasoned lamps, operated at constant voltage, gradually decrease in color temperature because of evaporation of the filament. Since the current does not decrease enough to correspond to an appreciable change in filament temperature, this decrease in color temperature is ascribed in large part to the accumulation of the familiar brown film on the inside surface of the bulb. The size and shape of the bulb are, therefore, important; each type must be separately investigated. Results are given for five types. The effect of operating seasoned lamps is a gradual decrease in color temperature, linear with time, which, like the rate of evaporation of tungsten, was found for 400-watt projection lamps to be nearly proportional to the thirtieth power of the temperature. The effect of seasoning new lamps for one hour at about rated voltage was a rise in color temperature from 3,050 to about 3,140° K, approximately half of which occurred in the first 3 minutes."—*G. R. Thornton* (Nebraska).

2272. **Juhász-Schäffer, A., & others. [Eds.] Documenta ophthalmologica.** Zürich: Documenta Press. Vol. 1, 1938.—*R. R. Willoughby* (Brown).

2273. **Kattsoff, L. O. Philosophy, psychology, and postulational technique.** *Psychol. Rev.*, 1939, 46, 62-75.—Certain tendencies in science—the increasing use of mathematics, as in mathematical physics, and the development of symbolic logic—have brought about a new fusion of science with philosophy in the interests of a sound methodology. Scientific systems, like Hull's psychological system, are really postulational systems, and are given an epistemological foundation in terms of the logic of such systems. Certain requirements, such as consistency, completeness, and independence of the axioms, and empirical verification, are discussed. But Hull's

use of the postulational technique is shown to overlook certain important features involved in such a technique. A scientific system is made possible by the orderliness and connectivity of events.—*A. G. Bills* (Cincinnati).

2274. **Koch, H. Das Kausalproblem in der modernen Physik und seine Bedeutung in der Psychologie.** (The problem of cause in modern physics and its significance in psychology.) *Arch. ges. Psychol.*, 1938, 101, 534-566.—On the whole the problems raised by the principle of indeterminacy have little bearing on the progress or procedures of psychology. The necessity of including the observer in operations presents physics with a psychological problem that is not insurmountable unless strict positivism is insisted on. Psychology itself is always characterized by indeterminacy of the statistical order. As for causation, Marbe and others have shown the operation of cause within statistical probabilities. Nothing is gained by veering toward parapsychology, for which no justification is evident. Planck's own philosophical observations on the quantum principle are frequently supported.—*H. D. Spoerl* (American International College).

2275. **Kuder, G. F. Use of the International scoring machine for the rapid computation of tables of intercorrelations.** *J. appl. Psychol.*, 1938, 22, 587-596.—By transcribing coded scores to answer sheets, the machine may be used to reduce the labor of computation of Pearsonian coefficients of correlation. The method is most efficient when the number of cases is between 50 and 100 and the intercorrelations among at least 5 variables are to be obtained.—*E. Ghiselli* (Maryland).

2276. **Martin, L. C. A standardized lantern for testing color vision.** *Brit. J. Ophthal.*, 1939, 23, 1-20.—A lantern for testing color vision is arranged to show test colors in pairs, as in the Board of Trade lantern. It is adapted to use electric light, and is standardized. The paper discusses the experiments and considerations which led to the formulation of the allowable tolerances in the transmission and color co-ordinate specifications of the filters, the color temperature of the lamps, and so on. The results of tests on normal and color-defective subjects are described.—*R. J. Beitel, Jr.* (American Optical Company).

2277. **Merrylees, W. A. The status of sensa. II.** *Aust. J. Psychol. Phil.*, 1938, 16, 233-250.—Sensa, similar to sense perceptions, consist of the primary and secondary qualities of perceived objects. While they are characteristic of the "perceptual appearance" they need not be postulated as mediating factors in the act of perception. Their intervention is conditioned upon external circumstances as in many optical illusions, and upon internal factors such as interest.—*H. D. Spoerl* (American International College).

2278. **Müller-Freienfels, R. Zur Psychologie der Psychologie.** (Concerning the psychology of psychology.) *Z. Psychol.*, 1938, 142, 135-168.—The author presents a detailed account of the various

meanings of the term "consciousness" as used from earliest times down to the present, and shows what attempts have been made to "objectivize," mechanize, personalize, and socialize the term; he concludes that we need a psychological (rather than a chemical, physical, or mechanical) psychology in which consciousness is "re-subjectivized."—G. F. J. Lehner (Vermont).

2279. Newhall, S. M. **An adjustable spot-pattern projection-slide.** *J. Psychol.*, 1939, 7, 157-162.—Constructional details and illustrative data are presented for a lantern slide which consists of a brass plate full of holes which can be individually opened or closed, thus producing as many spot patterns as the permutations permit. This slide has been found useful in demonstrations and experiments on the range of attention, time of perception or recognition, and pattern memory or recall.—C. N. Cofer (Brown).

2280. Neyman, J. **On statistics the distribution of which is independent of the parameters involved in the original probability law of the observed variables.** *Statist. Res. Mem.*, 1938, 2, 58-59.—For the probability law  $p(z)$  of any function  $z$  (independent of a particular parameter) of  $n$  random variables  $x$  (for which the elementary probability law is dependent on that parameter) to be independent of the parameter, it is necessary and sufficient that the regression of the logarithmic derivative of the elementary probability law for  $x$  on the function  $z$  shall be equal to zero, both for almost all values of  $z$  for which  $p(z)$  is greater than zero, and for all values of the parameter.—N. R. Bartlett (Brown).

2281. Neyman, J., & Pearson, E. S. **Contributions to the theory of testing statistical hypotheses.** *Statist. Res. Mem.*, 1938, 2, 25-57.—Part 2. Certain theorems on unbiased critical regions of type A: Types of unbiased tests were defined in Part 1 (*Statist. Res. Mem.*, 1, 1). The authors prove (1) the existence of the unbiased critical regions of the type A test when the hypothesis tested concerns one parameter, and (2) the identity of types A and  $A_1$  tests under certain conditions. Part 3. Unbiased tests of simple statistical hypotheses specifying the values of more than one unknown parameter: The following topics are discussed: (1) unbiased critical regions of the type C test; (2) effect of a transformation performed on the parameters; (3) simplification of solution in terms of the derivatives of the probability law of the variables; and (4) power functions of alternative tests of the hypothesis considered in Part 2.—N. R. Bartlett (Brown).

2282. Olson, W. C. **The forty-sixth annual meeting of the American Psychological Association.** *Amer. J. Psychol.*, 1939, 52, 127-130.—D. E. Johansen (Skidmore).

2283. Révész, G. **William McDougall, 1871-1938.** *Mensch en Maatsch.*, 1939, 15, 22-24.—One of McDougall's greatest achievements was that he took a radical position against the mechanistic concept of mind. He pointed out the importance of empirical psychology for an understanding of social relations and of a careful analysis of emotions and

instincts in a study of complex social phenomena.—H. Beaumont (Kentucky).

2284. Rider, P. R. **An introduction to modern statistical methods.** New York: Wiley, 1939. Pp. ix + 220. \$2.75.—This book is an attempt to envisage within a single volume the fundamental concepts of statistics and the newer methods of dealing with small samples developed by R. A. Fisher. The chapter topics are: frequency distributions, averages and moments, regression, correlation, the binomial and normal distributions, "Student's" distribution with the tests of significance, the chi-square distribution, analysis of variance, and experimental design. The methods are illustrated by comparatively simple numerical examples in order to avoid a maze of arithmetical computations. A set of 8 tables is appended which includes: probabilities and ordinates of the normal curve corresponding to given deviations, deviations of the normal curve corresponding to given probabilities, probabilities of the normal curve corresponding to large deviations, deviations of the normal curve corresponding to small probabilities, values of  $t$  corresponding to given probabilities, values of  $\chi^2$  corresponding to given probabilities, 5% points of the distribution of  $z$ , and 1% points of the distribution of  $z$ .—J. McV. Hunt (Brown).

2285. Society for the Protection of Mothers and Children in the Baltic states. [Eds.] **Pro juventute Baltica.** Tartu, Estonia: Society for the Protection of Mothers and Children in the Baltic states, Kindral Podral tän. 15. Vol. 1, 1938. Quarterly.—The purpose of the publication is the discussion of problems of heredity and eugenics with special reference to Baltic conditions. Articles are published in German, English and French.—M. E. Morse (Baltimore).

2286. Spelt, D. K. **The Manning pneumograph.** *Amer. J. Psychol.*, 1939, 52, 116.—D. E. Johansen (Skidmore).

2287. Tang, P. C. **The power function of the analysis of variance tests, with tables and illustrations of their use.** *Statist. Res. Mem.*, 1938, 2, 126-149.—After formulating the criterion for testing the general linear hypothesis (of analysis of variance tests) it is shown that if the hypothesis tested is not true the distribution depends upon a sum of non-central squares. The properties of this sum and the application of the squares in the derivation of the exact distribution of the squares of the coefficient of variation are studied. Methods are given for calculating the probability integral of the square of the joint probability distribution of all the independent variates in the general case where the hypothesis tested is not true. Discussion and tables of the probability of failing to reject the hypothesis when a second hypothesis is true are presented.—N. R. Bartlett (Brown).

2288. Taylor, D. **Realism and memory.** *Aust. J. Psychol. Phil.*, 1938, 16, 218-232.—The phenomena of memory and hallucinations are not inimical to a complete realism. Memory is a special type of the

perception of objects. It is mediate and selective, operating by an automatic kind of association rather than by inference. "Errors" are evidence of its automaticity rather than a support of idealism; these are based on inappropriate inferences.—*H. D. Spoerl* (American International College).

2289. Thorndike, E. L. *On the fallacy of imputing the correlations found for groups to the individuals or smaller groups composing them.* *Amer. J. Psychol.*, 1939, 52, 122-124.—"If the correlation between two traits, A and B . . . in  $n$  groups . . . has a certain value, K, the correlation between A and B in the individuals or the families composing the groups need not be K and will not be, save in very special circumstances." This point is demonstrated with 12 artificial populations, where the  $r$  between IQ and the number of rooms per person is, in each case, 0. If all the persons in the 12 samples are combined,  $r = .45$ ; if the averages of the 12 samples are used,  $r = .90$ .—*D. E. Johannsen* (Skidmore).

2290. Weinschenk, C. *Die Erkenntnis des Vorstellens als solchen.* (Knowledge of cognition as such.) *Arch. ges. Psychol.*, 1938, 101, 433-462.—The restrictions of consciousness place basic limitations upon our knowledge. Immediate experience, while possible, contains inadequate differentiation. Thus our knowledge of cognitions is always mediate and indirect, whether built upon immediate experience or derived from reference to perceptual attributes.—*H. D. Spoerl* (American International College).

2291. Wellek, A. *Verzeichnis des deutschen psychologischen Schrifttums des Jahres 1936.* (Index of German psychological publications of 1936.) *Z. Psychol.*, 1938, 142, 323-368.—The list is classified according to subjects and authors.—*G. F. J. Lehner* (Vermont).

2292. Werner, H. *William Stern's personalistics and psychology of personality.* *Character & Pers.*, 1938, 7, 109-125.—Stern's system is dialectic, as is illustrated by his approach to the study of *person*. The person is neither a unity nor a multiplicity; it is *unitas multiplex*. Psychophysically the person is neutral. The definitive property of the person, however, is not dialectic. Teleologically it can be defined in terms of its purposive activity. Its fundamental categories can be expressed thus. It is a *totality* because it can be derived neither from lower nor higher units. It has *depth*, that is, it has a center and a periphery and is composed of strata or layers. The personal world is centered in the personality in three ways: (1) *Meaning*. The meaning content of the world is determined in terms of the personality. (2) *Function*. The relation between world and person is polar; there is a demand-character or valence. The world has a material character to which the person reacts to give form. (3) *Dimension*. The person lives in a spatial-temporal present. There are three problems of significance for psychology the solutions of which have been furthered by Stern's personalistics: (1)

the methodological problem of the diagnosis of personality, (2) the problem of setting up a typology of personality and character, and (3) the problem of constructing a typology of personal worlds.—*M. O. Wilson* (Oklahoma).

2293. Westerhof, A. C. *Representative psychologists.* Union Bridge, Md.: Pilot Pub. Co., 1938. Pp. x + 119.—A critique of the problem of mechanism versus teleology, with chapters devoted to the systematic positions of Stern; Koffka and Köhler; Lewin; Terman; Tolman; Freud, Jung and Adler; Pauly; and McDougall.—*S. H. Britt* (George Washington).

2294. White, L. A. *Mind is minding.* *Sci. Mon.*, N. Y., 1939, 48, 169-171.—Mind is the behaving, reacting, of a living organism as a whole, i.e., mind is function.—*O. P. Lester* (Buffalo).

2295. Wilgalis, K. H. *Die Stellung der Psychologie an italienischen Universitäten und Instituten.* (The status of psychology at Italian universities and institutes.) *Z. Psychol.*, 1938, 142, 193-199.—In the higher schools psychology is obligatory for medical students, and it is hoped it will soon be so for all those intending to enter the teaching profession.—*G. F. J. Lehner* (Vermont).

2296. Williams, R. D. *Studies in contemporary psychological theory: I. What is behavior space?* *J. Psychol.*, 1938, 6, 69-79.—"Space has been said to be a hole-receptacle; later it was defined as a mode of mental function. Still later it was defined to be a set of terms and relations. An extension or refinement of this last interpretation was made when space was defined as a distribution of probe body testings. What this distribution will be is determined by the character of the probe body employed. There are other probe bodies besides those employed by the physicist and chemist."—*E. D. Hunt* (Brown).

2297. Williams, R. D. *Studies in contemporary psychological theory: II. What is Gestalt psychology?* *J. Psychol.*, 1938, 6, 99-114.—"Gestalt psychology is the description and explanation of experiences—phenomenal field—in terms of the dynamics made familiar to us by Newton and others. . . . Relative or organizationally determined properties constitute the central core. . . . Gestalt emphasis on wholes is better stated as emphasis on properties determined by organization."—*E. D. Hunt* (Brown).

2298. Winsor, A. L., & Korchin, B. *A device for obtaining constant olfactory stimulation.* *Amer. J. Psychol.*, 1939, 52, 114-115.—*D. E. Johannsen* (Skidmore).

[See also abstracts 2379, 2454, 2594, 2600.]

#### NERVOUS SYSTEM

2299. Babkin, B. P., Hebb, C. O., & Sergeyev, M. A. *The parasympathetic-like effect of splanchnic stimulation on pancreatic secretion.* *Amer. J. Physiol.*, 1938, 123, 5-6.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2300. Barrera, S. E., & Ferraro, A. Effects of lesions of the posterior bundle system in *Macacus rhesus*. *Amer. J. Physiol.*, 1938, 123, 9.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2301. Beecher, H. K., McDonough, F. K., & Forbes, A. Similarity of barbiturate anesthesia and spinal transection. *J. Neurophysiol.*, 1939, 2, 81-88.—*M. A. Rubin* (Worcester State Hospital).

2302. Bender, M. B. Regeneration of the third cranial nerve in monkeys. *Amer. J. Physiol.*, 1938, 123, 14-15.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2303. Bertrand, I., Delay, J., & Guillain, J. L'électro-encéphalogramme dans le myxoedème. (The electro-encephalogram in myxedema.) *C. R. Soc. Biol., Paris*, 1938, 129, 395-298.—From their study of seven congenitally myxedematous patients manifesting complete idiocy, the authors conclude that the existence of electro-encephalographic anomalies is indisputable, such as diminution in amplitude, scarcity of large waves (which, when they did appear, had a frequency of 3 to 4 per second), absence of the Berger rhythm, absence of any reaction to light stimuli, and uniform aspect of the records under different settings.—*G. Goldman* (Sorbonne).

2304. Blair, E. A. Modification of latent addition and recovery processes in nerve through continuous polarization. *Amer. J. Physiol.*, 1938, 123, 16-17.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2305. Blake, H., Gerard, R. W., & Kleitman, N. Factors influencing brain potentials during sleep. *J. Neurophysiol.*, 1939, 2, 48-60.—Brain-potential changes during sleep are described. Sometimes there is a good correlation between potential pattern and subjective reports of dreams. The effects of voluntary insomnia, narcolepsy, benzedrine, and alcohol on the electrical activity of the brain were studied, and the results discussed in relation to theories of sleep and the source of cortical potentials.—*M. A. Rubin* (Worcester State Hospital).

2306. Blake, H., & Monnier, M. Potentials from the medulla of the cat. *Amer. J. Physiol.*, 1938, 123, 17-18.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2307. Boyd, T. E., Brosnan, J. J., & Maaske, C. A. Summation of facilitating and inhibitory effects at the neuromuscular junction. *Amer. J. Physiol.*, 1938, 123, 19-20.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2308. Breitbach, A., & Müsch, H. J. Selektive Reizung vegetativer Nervenfasern im Nervus ischiadicus des Frosches. (Selective stimulation of autonomic nerve fibers in the sciatic nerve of the frog.) *Pflüg. Arch. ges. Physiol.*, 1938, 241, 360-369.—*M. A. Rubin* (Worcester State Hospital).

2309. Bremer, F. Parenté des diverses ondes électriques de l'écorce cérébral. (The relationship between the various electric waves in the cerebral cortex.) *C. R. Soc. Biol., Paris*, 1938, 128, 544-549.—The differences in amplitude and frequency in the cortical waves (alpha, beta, gamma, and delta) may be explained simply as a variation in two independent factors which act on the same neurone elements: the degree of excitation of the cortex at a given spot (the total number of active neurones and the frequency of their pulsations) and the varying amount of synchronization in the active neurones (the amplitude). Facts such as masking in sensory reactions in the cortical auditory area indicate that the different waves in the electro-encephalogram represent the same neurone elements acting in a more or less synchronized manner.—*G. Goldman* (Sorbonne).

2310. Bremer, F. Ondes électriques de l'écorce cérébrale et influx nerveux corticifugés. (Electric waves in the cerebral cortex and corticofugal nerve impulses.) *C. R. Soc. Biol., Paris*, 1938, 128, 550-554.—Studies on the relationship between cortical waves and corticofugal nerve impulses were made by means of the isolated brain preparation in the cat. Simultaneous records were made of the normal spontaneous electric waves of the motor palpebral cortex and the tonus of the palpebral orbicularis. All the results were negative. This may be explained by a block in the synaptic transmission of the corticofugal impulses, which may be too few at the level of the corticobulbar synapses. However, the author found an elementary electric manifestation of corticobulbar motricity in the appearance of special waves of large amplitude, to which a flicker in the palpebral myogram was found to correspond in every record.—*G. Goldman* (Sorbonne).

2311. Bremer, P., & Kleyntjens, F. Nouvelles recherches sur le phénomène de la sommation d'influx nerveux. (Further experiments concerning the phenomenon of summation of nervous impulse.) *Arch. int. Physiol.*, 1937, 45, 382-414.—The dissipation of the "latent functional modification" which brings about summation is studied in the curarized neuromuscular preparation and the spinal frog. It is found to be an exponential function of time. Intravenous injection of eserine and of prostigmine alters the curve of peripheral but not of central or neuro-muscular summation. This would indicate that the latent modification is not to be attributed to impregnation of the synaptic region by an acetylcholinic mediator. It is a phenomenon similar to that conditioning the summation of two impulses at the level of a blocked segment of nerve fiber (Blair and Erlanger).—(Courtesy *Année psychol.*).

2312. Chang, H. C., Chia, K. F., Hse, C. H., & Lim, R. K. S. Humoral transmission of nerve impulses at central synapses. I. Sinus and vagus afferent nerves. *Chin. J. Physiol.*, 1937, 12, 1-36.—Central vagus or sinus stimulation causes liberation, at synapses in the brain, of acetylcholine, which then stimulates the secretion of adrenaline. Another pressor substance may also be produced. Central stimulation of the sympathetic similarly produces liberation of sympathin.—(Courtesy *J. ment. Sci.*).

2313. Clark, G. H., Magoun, H. W., & Ranson, S. W. Hypothalamic regulation of body temperature. *J. Neurophysiol.*, 1939, 2, 61-80.—Regions in the hypothalamus are described which have to do with the resistance to temperature rise and chilling.—*M. A. Rubin* (Worcester State Hospital).

2314. Clark, S. L. Responses following electrical stimulation of the cerebellar cortex in the normal cat. *J. Neurophysiol.*, 1939, 2, 19-35.—*M. A. Rubin* (Worcester State Hospital).

2315. Darrow, C. W., & Gellhorn, E. A study of simultaneous reactions of different autonomic indicators. *Amer. J. Physiol.*, 1938, 123, 49-50.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2316. Davis, P. A., Davis, H., & Thompson, J. W. Progressive changes in the human electroencephalogram under low oxygen tension. *Amer. J. Physiol.*, 1938, 123, 51-52.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2317. Dempsey, E. W., & Rioch, D. McK. The localization in the brain stem of the oestrous responses of the female guinea pig. *J. Neurophysiol.*, 1939, 2, 9-18.—Transection experiments in the guinea pig and cat indicate that an afferent pathway for sexual responses is present in the posterior quadrant of the spinal cord, runs through the roof of the mesencephalon and terminates in the region between the intercollicular level and the anterior portion of the mammillary bodies. The pathway is a crossed one, decussating at some point below the inferior colliculi.—*M. A. Rubin* (Worcester State Hospital).

2318. Dow, R. S. Etude oscillographique de l'activité électrique du cervelet chez le chat. (An oscillographic study of electrical activity in the cat cerebellum.) *C. R. Soc. Biol., Paris*, 1938, 128, 538-544.—From experiments made on cats decerebrated by a precollicular transection of the cerebral trunk or by the Bremer isolated brain method, the author found that the electrical activity of the cerebellum is characterized by waves of large frequency and low voltage and that this activity seems to be largely independent of cerebellipetal impulses. An intense faradization of the cerebellum effects variations which are comparable to cortical epilepsy and which correspond to inverse variations in postural tonus. This parallelism shows that the functional activity of the cerebellar cortex is closely related to its spontaneous electrical activity.—*G. Goldman* (Sorbonne).

2319. Drohocki, Z. L'électrospectrographie du cerveau. (Electrospectrography of the brain.) *C. R. Soc. Biol., Paris*, 1938, 129, 889-893.—A filtering of the global responses of the cortex by means of filters consisting of narrow moving bands reveals the presence of important groups of waves which the global response completely conceals. These waves show a very pronounced discontinuity at the same time that the global tracing presents a uniform activity.—*G. Goldman* (Sorbonne).

2320. Drohocki, Z. Les manifestations électriques spontanées du cerveau à l'état de veille.

(Spontaneous electrical manifestations in the brain during the waking state.) *C. R. Soc. Biol., Paris*, 1938, 129, 893-895.—An analysis of the records of cortical activity in the area striata and the area praecentralis shows that the electroencephalogram during the waking state and during rest is entirely irregular and without apparent periodicity, with the possible exception of long cycles of 10-20 minutes. Each architectonic structure may successively present different phases of activity. According to the form of the momentary activity, a stimulus may produce different effects. Therefore it would be dangerous to try to establish direct relationships between the change in the appearance of the EEG and the effect of a given stimulation.—*G. Goldman* (Sorbonne).

2321. Drohocki, Z., & Drohocka, J. L'électrocorticogramme pendant l'établissement de la narcose à l'uréthane. (The electrocorticogram during urethane narcosis.) *C. R. Soc. Biol., Paris*, 1938, 129, 895-898.—Observations made on the area striata and the area praecentralis granularis during urethane narcosis showed a disappearance of the rapid waves and a regularization of the inner parts of the phases: 30 minutes after the establishment of narcosis, the authors found an automatization of phase and an identification in the electro-encephalogram of the two fields. They believe that this phenomenon is not due to a de-afferentation of the cerebral cortex (Bremer's hypothesis) but to the gradual disappearance of differentiation (Entdifferenzierung).—*G. Goldman* (Sorbonne).

2322. Drohocki, Z., & Drohocka, J. L'électrospectrogramme du cerveau. (The brain electro-spectrogram.) *C. R. Soc. Biol., Paris*, 1939, 130, 95-98.—The authors analyzed the electrocorticogram by breaking it up into its elementary frequencies by means of filters. In this way they obtained the electrospectrogram of the area parietalis and the area striata in the rabbit for both the narcosis and the waking states.—*G. Goldman* (Sorbonne).

2323. Dubner, H. Further studies of factors influencing brain rhythms. *Amer. J. Physiol.*, 1938, 123, 56-57.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2324. Duncan, D., & Crocker, E. S. Aberrant ganglion cells as a source of intact fibers in severed dorsal roots. *J. Neurophysiol.*, 1939, 2, 3-8.—It is shown that the presence of "efferent" fibers in lumbo-sacral dorsal roots is due to aberrant ganglion cells which escape degeneration on section of the roots. Only afferent fibers are present in the dorsal roots.—*M. A. Rubin* (Worcester State Hospital).

2325. Gantt, W. H., & Loucks, R. B. Posterior nerve function as tested by the conditioned reflex method. *Amer. J. Physiol.*, 1938, 123, 75.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2326. Gaylor, J. B., & Schwerin, O. V. Reflex excitation and inhibition of sympathetic activity. *Amer. J. Physiol.*, 1938, 123, 75-76.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2327. Gesell, R., & Lapidés, J. **Synaptic transmission.** *Amer. J. Physiol.*, 1938, 123, 76-77.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2328. Goltz, K., & Rajeva, N. [The influence of the autonomic nervous system upon the cutaneous receptors of cold-blooded animals.] *Probl. Physiol. Pathol. Organes Sens.*, 1936, 69-76; 213.—The sympathetic fibers have an excitatory effect upon the receptive apparatus in the skin, while the parasympathetics exert an inhibitory influence. Their combined action regulates the physico-chemical processes necessary for cutaneous reception. English summary.—(Courtesy *Année psychol.*).

2329. Greenfield, J. G. **Recent studies of the morphology of the neurone in health and disease.** *J. Neurol. Psychiat.*, 1938, 1, 306-325.—A critical review.—W. J. Brodgen (Johns Hopkins).

2330. Jung, R., & Weisschedel, E. **Das symptomatologische Studium motorischer Ausfallserscheinungen nach lokalisierte subcorticaler Ausschaltung durch Elektrokoagulation.** (The symptomatological study of motor phenomena resulting from localized subcortical destruction by electrocoagulation.) *Pflüg. Arch. ges. Physiol.*, 1938, 241, 184-200.—A systematic study of the relationship of anatomical structures in the brain stem to motor behavior. The proprioceptive postural reflexes (from labyrinth and muscle receptors) act in opposition to the exteroceptive reflexes (from the eye and skin receptors).—M. A. Rubin (Worcester State Hospital).

2331. Lapicque, M. **Sur les modifications de chronaxie des nerfs moteurs après sympathectomie.** (On modifications in chronaxy in motor nerves after sympathectomy.) *C. R. Soc. Biol.*, Paris, 1938, 129, 727-730.—Modifications in chronaxy of motor nerves brought about by a sectioning of the sympathetic nerve are purely transitory and are due to the pain which the sectioning arouses in the non-anesthetized frog.—G. Goldman (Sorbonne).

2332. Lefebvre, J. **Les systèmes itératifs. Leur importance en électrophysiologie.** (The iterative systems; their importance in electrophysiology.) Paris: Thèse de Médecine, 1938. Pp. 221.—The following subjects are discussed: (1) reflex medullary excitability, the peripheral vegetative systems, and the sensory systems for the sensation of pain, and (2) modifications of iterative excitability under the influence of pharmacodynamic substances. Iterative excitability and rhythmic responses to a constant galvanic excitation in many cases offer data which help in the understanding of the mode of action of electrotherapy. Extensive bibliography.—G. Goldman (Sorbonne).

2333. Loman, J., Greenberg, B., & Myerson, A. **Human autonomic pharmacology. XIX. The effect of mecholyl, prostigmin, benzedrine sulfate and atropine on the urinary tract: Urographic studies.** *New Engl. J. Med.*, 1938, 219, 655-660.—W. J. Brodgen (Johns Hopkins).

2334. Moruzzi, G. **Action inhibitrice du paleo-cervelet sur les réflexes circulatoires et respiratoires d'origine sino-carotidienne.** (The inhibitory action of the paleocerebellum on the circulatory and respiratory reflexes of sino-carotid origin.) *C. R. Soc. Biol.*, Paris, 1938, 128, 535-538.—Experiments on the sino-carotid respiratory reflexes in cats which had been decerebrated at the precollicular level by a special technique were performed by means of a bipolar faradic stimulation of the anterior lobe. The experimenter found a direct inhibitory action of the paleocerebellum on the sino-carotid reflexes, both circulatory and respiratory, and concludes that the action of the cerebellum extends to the fundamental activities of the vegetative life, which are controlled by the correlation centers of the bulbo-protuberantial tegmentum.—G. Goldman (Sorbonne).

2335. Moruzzi, G. **Action de l'hypoglycémie insulinique sur l'activité électrique, spontanée et provoquée, de l'écorce cérébrale.** (The action of insulin hypoglycemia on the electrical activity, spontaneous or stimulated, of the cerebral cortex.) *C. R. Soc. Biol.*, Paris, 1938, 128, 1181-1184.—On the premise that the metabolism of the nerve centers is essentially glucidic, the author performed experiments, using the oscillographic method, on the repercussions on the activity of the nerve centers when the neurones were deprived of glucose. The subjects were barbiturized cats without narcosis and rabbits prepared according to the Bremer method. Results showed that intravenous injections of glucose re-established immediately the previously suppressed spontaneous activity. However, if the experimenter waited for some time before injecting the glucose, the re-establishment of the cortical activity was not instantaneous. In general the cortex was found to be more sensitive to hypoglycemia than the subcortical centers. The same thing was true for several narcotics which inhibit respiration in nerve tissues.—G. Goldman (Sorbonne).

2336. Moruzzi, G. **Les phénomènes de "facilitation" dans l'écorce cérébrale et l'hypothèse de la médiation chimique de l'influx nerveux.** (The phenomena of facilitation in the cerebral cortex and the hypothesis of chemical mediation in nerve impulse.) *C. R. Soc. Biol.*, Paris, 1938, 129, 27-32.—Carotid injections of weak doses of acetylcholine bring about an increase in electrical activity in the masticatory cortex in the rabbit and reproduce phenomena of cerebral facilitation. Though the connection between cause and effect may not be immediate, the author suggests that the liberation of acetylcholine may play an intermediate role in the process which results in the phenomenon of facilitation.—G. Goldman (Sorbonne).

2337. Moruzzi, G. **Démonstration oscillographique de la synergie des deux centres masticateurs corticaux, gauche et droit, chez le lapin.** (Oscillographic demonstration of synergy of the two cortical masticatory centers, left and right, in the rabbit.) *C. R. Soc. Biol.*, Paris, 1938, 129, 32-37.—The author reports his experimental observations on

synergy in the two cerebral hemispheres of the rabbit with respect to the bipolar derivation of electrical activity in the masticatory cortex areas. Among other things, he found in the epileptic after-discharges of the masticatory center a very clear relation between the rhythm of the cortical activity and that of the masticatory movements. The ratios of frequency of the masticatory movements and the electrical pulsations often approached whole numbers; there were approximately two or three electrical pulsations per masticatory movement.—G. Goldman (Sorbonne).

2338. Moruzzi, G. Action du fluorure de sodium et du bleu de méthylène sur l'activité électrique spontanée et provoquée, de l'écorce cérébrale. (Action of sodium fluoride and methylene blue on electrical activity, spontaneous or stimulated, of the cerebral cortex.) *C. R. Soc. Biol., Paris*, 1938, 129, 884-889.—In cats an injection of sodium fluoride reduces the spontaneous activity in the response of the auditory cortex, as well as the after-discharge, while leaving unaffected the primary response. This reduction, which is transitory and is rapidly followed by a return and even an exaggeration in the activity, may be due to a momentary inhibition of the cortical cellular glycolysis. A hyperthermizing dose of methylene blue brings about, on the contrary, a reinforcement of the spontaneous activity and after-discharge, which is followed by a total arrest of these activities. The primary responses are affected very little.—G. Goldman (Sorbonne).

2339. Nahon, S. Les rapports pathologiques entre le système nerveux et la peau. (Pathological relationships between the nervous system and the skin.) Paris: Thèse de Médecine, 1938. Pp. 42.—G. Goldman (Sorbonne).

2340. Piéron, H., & Segal, J. Des processus de facilitation rétroactive dans l'excitation électrotactile. (Processes of retroactive facilitation in electrotactile excitation.) *C. R. Soc. Biol., Paris*, 1938, 129, 438-439.—In a study of the effect of excitation of a branch of the sensory cutaneous nerve by means of brief condenser discharges, two facts are brought out which appear to be paradoxical, both of which are manifested in the form of retroactive facilitation: (1) a reduction in the reaction time for a single shock by a second shock coming after a short interval; and (2) the perception of a double shock at a level at which a single shock of like intensity is infraliminal. The hypothesis advanced, which is corroborated by the work of Lorento de Nô, assumes that an inefficient direct impulse may be rendered efficacious by secondary polysynaptic impulses. A second direct shock occurring before the arrival of the polysynaptic discharge accelerates the response of the sensory neurone.—G. Goldman (Sorbonne).

2341. Polimanti, O. [The chemical activity of the nerves.] *Tisia*, 1937, 2, 116-125.—Experimental evidence indicated that when the vagus or sympathetic nerve of a rabbit was cut and the nerve endings immersed in Ringer solution, faradic excita-

tion continued for some time specially activated the solution. If the solution containing the active substance was applied to the gastrocnemius of frogs which were fatigued to the point that they showed no response, a reaction could be produced. The solution brought about vagus or sympathetic effects on hearts of *Testudo graeca*, *Bufo*, or *Emys* either in situ or suspended according to Engelmann. It is concluded that all nerves have secreting power and that the activity of the nervous system may be considered essentially chemical.—D. G. Ryans (William Woods College).

2342. Pollock, H. M., & Levene, G. Hypophyseal influence on cranial structure with relational mental development. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 90-99.—The relationship of intelligence to physical changes in the skull as revealed by roentgenologic examination was studied. Results suggest "an apparent correlation of anterior lobe (of the hypophysis) activity with mental development." Pictures of 8 skulls are used in illustration and a table is published which shows means, sigmas, and deviations from means for 13 measurements on each of the 4 groups of subjects.—M. W. Kuenzel (Children's Home, Cincinnati).

2343. Rappeport, J., & Robinson, F. A. [The influence of the vegetative nervous system upon the ocular receptor.] *Probl. Physiol. Pathol. Organes Sens.*, 1936, 33-42; 207-208.—Kuvatov and Robinson had previously demonstrated that sympathetic stimulation accentuated the effect of darkness upon the receptor elements of the frog eye. In the present experiment the retina was placed in bright light; excitation of the sympathetic system had no analogous influence upon the condition of the receptors. English summary.—(Courtesy *Année psychol.*).

2344. Rasmussen, A. T. Innervation of the hypophysis. *Endocrinology*, 1938, 23, 263-278.—W. J. Brodgen (Johns Hopkins).

2345. Rey, A. La destruction progressive du cortex cérébral chez le rat et ses effets immédiats. (The progressive destruction of the cerebral cortex in the rat and its immediate effects.) *Arch. Psychol., Genève*, 1938, 27, 1-88.—The problem is the immediate effect of the destruction of portions of the cortical tissue, by careful surgical methods, on certain acquired forms of simple behavior: (1) conditioned motor behavior (leaping from a box, initiated by electric shock), (2) opening a latch box of a special construction which eliminated choice by chance, and (3) maze learning. 192 rats were trained in one or more of the above problems and then underwent successive operations whereby portions of the cortical tissue were progressively destroyed. Four hours after each operation the rat was tested for behavior modifications. The principal results were: (1) Animals trained in the first problem verified Lashley's mass-action law: small lesions had no appreciable effect, while large lesions (more than 30% of the neocortical surface) or a success of small lesions approximating the same surface destroyed

the habit and made relearning difficult or impossible. Only the mass of tissue was important; the special area was not significant. (2) For animals trained in problem 2, the frontal area was significant, while lesions in the visual area were significant for animals trained in problem 3. (3) For animals trained in both problems 2 and 3 it was found that the first habit disappeared and the second remained for lesions in the frontal area, while the reverse was true for occipital lesions. (4) This last differentiation was brief, disappearing within 24 hours, probably as a result of processes of substitution.—E. Claparède (Geneva).

2346. Ruffin, H. *Stirnhirnsymptomatologie und Stirnhirnsyndrome*. (Frontal lobe symptomatology and frontal lobe syndrome.) *Fortschr. Neurol. Psychiat.*, 1939, 11, 34-52.—The article is concerned with the most important neurological findings in frontal lobe diseases. The topics discussed include akinesia, enuresis, disturbances of muscle tone, tremor, orientation disturbances, ataxia, convulsions, and a number of other symptoms. This article also includes a consideration of neighboring and general symptoms such as pupil and fundus disorders, visual field disturbances, and exophthalmus. A concluding article will follow.—D. S. Oberlin (Delaware State Hospital).

2347. Schwab, R. S., & Cobb, S. *Simultaneous electromyograms and electroencephalograms in paralysis agitans*. *J. Neurophysiol.*, 1939, 2, 36-41.—No relationship was found in 37 cases of paralysis agitans between the rhythms of the electromyogram and those of the electroencephalogram. These data suggest that the tremor does not originate in the cerebral cortex, but rather in some nucleus of the brain stem or basal ganglia.—M. A. Rubin (Worcester State Hospital).

2348. Serota, H. M. *Temperature changes in the cortex and hypothalamus during sleep*. *J. Neurophysiol.*, 1939, 2, 42-47.—The temperature of basal brain regions of both the conscious and the anesthetized cat is higher than that of the cerebral cortex. The positive temperature difference between hypothalamus and cortex is increased in irregular fashion with activity (fear, rage, or anticipation of food); it is decreased by sleep. On awakening from sleep, the hypothalamic temperature rises earlier and farther than that of the cerebral cortex, caudate nucleus, or Ammon's horn. The temperature decrease in the hypothalamus during sleep is due to lowered cell metabolism, which indicates that sleep is associated with decreased activity of a hypothalamic "sleep center."—M. A. Rubin (Worcester State Hospital).

2349. Silveira, A. *Campos architectonicos do lobo frontal e funções da inteligencia*. (Architectural fields of the frontal lobe and the functions of intelligence.) *Rev. Neurol. Psychiat. S. Paulo*, 1937, 3, 131 ff.—Research findings relative to the anatomical localization of the various functions of intelligence are reviewed. Diverse conclusions are

attributed to failure to take into account sufficiently the significance of the afferent and efferent systems. Frontal symptoms caused by repercussion from parieto-temporal, rather than frontal, lesions are discussed.—D. G. Ryans (William Woods College).

2350. Smith, J. R. *The electroencephalogram during normal infancy and childhood: I. Rhythmic activities present in the neonate and their subsequent development*. *J. genet. Psychol.*, 1938, 53, 431-453.

—This is the first of a series of longitudinal studies of the e. e. g. in human young. In 14 cases, 1 day to 4½ years old, serial records were taken at varying intervals over periods of 4-18 months, supplemented by records from 11 neonates and single observations on 46 children 3-17 years old. In contrast to "baseline patterns" recorded from occipital and frontal regions, rhythmic activity (3 or more sequential waves, at least 10 $\mu$ v in amplitude) occurred over the sensory-motor area during sleep, from the first post-natal day. The waves disappeared upon awakening. 4 frequency bands were distinguished: 1-3 per second "delta" waves, 3½-6 per second "drowsy" waves, 7-8 per second intermediate waves, and 12-14 (rarely 19-20) per second fast waves. All bands showed increasing amplitude, length of sequence and regularity up to 4-6 months, while the "drowsy" waves later decreased in amplitude and sequence length. It is suggested that this activity indicates developing cortical function.—D. K. Spelt (Mississippi).

2351. Smith, J. R. *The electroencephalogram during normal infancy and childhood: II. The nature of the growth of the alpha waves*. *J. genet. Psychol.*, 1938, 53, 455-469.—Serial observations on 17 infants and children up to 5 years old, together with single observations on 46 cases 3-17 years old, showed alpha waves first appearing at about 4 months with a frequency of 3-4 per second. Frequency, amplitude, regularity, and length of sequence all increased with age. Frequency reached the 9-per-second adult level about 8 years, and its growth could be described by an exponential equation.—D. K. Spelt (Mississippi).

2352. Smith, J. R. *The electroencephalogram during normal infancy and childhood: III. Preliminary observations on the pattern sequence during sleep*. *J. genet. Psychol.*, 1938, 53, 471-482.—Serial observations on 15 infants up to 18 months old showed that during the first 5 or 6 months after birth the various sensory-motor area rhythms and the alpha waves were progressively organized into a predictable awake-asleep sequence of patterns, similar to that found in adults.—D. K. Spelt (Mississippi).

2353. Versilova, O. V., & Magnitskii, A. N. [The influence of faradic stimulation of the brain upon the excitability of a muscle devoid of nerve connections with the centers.] *Bull. Biol. Méd. exp., U.R.S.S.*, 1936, 1, 424-425.—Faradic stimulation of the brain in cats induces a change of chronaxy in the denervated gastrocnemius, usually an increase, while

the rheobase is hardly affected. It is concluded that faradic stimulation leads to the formation of chemical substances, which pass into the blood stream and influence the functional lability of the muscle.—(Courtesy *J. ment. Sci.*).

2354. Walter, W. G. The technique and application of electro-encephalography. *J. Neurol. Psychiat.*, 1938, 1, 359-385.—A critical review.—W. J. Brodgen (Johns Hopkins).

2355. Weinbach, A. P. Some physiological phenomena fitted to growth equations. III. Rate of growth of brain potentials (alpha frequency) compared with rate of growth of the brain. *Growth*, 1938, 2, 247-251.—(Biol. Abstr. XIII: 465).

2356. Weisschedel, E., & Jung, R. Technik und Leistungsfähigkeit der lokalisierten subcortical Aus-schaltung durch Elektrokoagulation. (Technique and efficiency of localized subcortical destruction by electrocoagulation.) *Pflüg. Arch. ges. Physiol.*, 1938, 241, 169-183.—A method is described for placing localized electrodes in subcortical regions of the brain. These electrodes are suitable for localized electrical stimulation, for production of lesions, and for recording potential changes. The advantages of this method (a modification of that described by Hess) over that employing the Horsley-Clarke instrument are described.—M. A. Rubin (Worcester State Hospital).

2357. Woillard, H. H., & Harpman, A. The cortical projection of the medial geniculate body. *J. Neurol. Psychiat.*, 1939, 2, 35-44.—The distribution of the auditory radiation has been studied in the cat by the Marchi method after electrolytic lesion at its origin from the medial geniculate body. It has a strict homolateral distribution to the cortical area bounded in front by the anterior ectosylvian fissure, behind by the posterior ectosylvian, above by the suprasylvian fissure, and below ending a short distance above the rhinal fissure. It is transversed axially by the pseudo-sylvian fissure. There is no angulation or twisting of the fibers of the auditory radiation. The termination in the pars extrema of the ventral nucleus of the thalamus of the mesial fillet is such that the fasciculus cuneatus occupies its more medial part.—W. J. Brodgen (Johns Hopkins).

2358. Zotterman, Y. A note on the relation between conduction rate and fiber size in mammalian nerves. *Skand. Arch. Physiol.*, 1937, 77, 123-128.—The writer observed a linear relationship between rate of conduction and amplitude of discharge in the saphenous nerve of the cat. It has been shown that speed of transmission is a function of the distance between the nodes of Ranzier; it has further been established that neurone diameter and inter-nodal distance are related (Retzius and Rey). The writer is therefore led to the conclusion that speed of conduction varies as the square of fiber diameter.—F. W. Finger (Brown).

[See also abstracts 2365, 2374, 2377, 2381, 2410, 2461, 2573.]

## RECEPTIVE AND PERCEPTUAL PROCESSES

2359. Ansberry, M. Auditory threshold of unpleasantness in normal and hard of hearing subjects. *Arch. Otolaryng.*, Chicago, 1938, 28, 954-958.—Over the entire range from 64 cycles to 8192 cycles, the average difference between the threshold of acuity and the threshold of unpleasantness for the normal person is 24.9 decibels, whereas that for the person with hypacusis is 10.9 decibels. In 11.5% of the hard of hearing subjects any increase above the threshold was considered unpleasant.—W. J. Brodgen (Johns Hopkins).

2360. Anson, B. J., Karabin, J. E., & Martin, J. Stapes, fissula ante fenestram and associated structures in man: I. From the embryo of seven weeks to that of twenty-one weeks. *Arch. Otolaryng.*, Chicago, 1938, 28, 676-697.—W. J. Brodgen (Johns Hopkins).

2361. Atkinson, T. G. The so-called physiologic exophoria. *Amer. J. Optom.*, 1939, 16, 10-13.—R. R. Willoughby (Brown).

2362. Avera, L. F. Color—what it is and how do we see it. *Amer. J. Optom.*, 1939, 16, 14-21.—R. R. Willoughby (Brown).

2363. Bielschowsky, A. Lectures on motor anomalies. V. *Amer. J. Ophthalmol.*, 1939, 22, 38-44.—The importance of determining the type of retinal correspondence present in strabismus is emphasized, and clinical cases illustrating etiological factors which account for convergent strabismus are described.—D. J. Shaad (Berkeley, Calif.).

2364. Bujas, Z., & Chweitzer, A. Les modifications électrotoniques d'excitabilité pour le goût électrique. (Electrotonic modifications of excitability for electric taste.) *C. R. Soc. Biol.*, Paris, 1938, 127, 1071-1072.—The recent studies of these authors indicate that modifications of excitability for sour taste are inverse, as are the polar laws of excitation. The general form of the curve has not yet been determined. The relations of the stimulus threshold to the terminal threshold for sour taste have been found to be 2.5, 1.8, 2.1, 1.4, and 1.7, while in the nerve of the frog this relationship has been usually found to be in the neighborhood of 10.—G. Goldman (Sorbonne).

2365. Burian, H. M. Retinal pigment migration in the frog. *Amer. J. Ophthalmol.*, 1939, 22, 16-27.—The author supports Engelmann's theory of the existence of centrifugal retinomotor fibers in the optic nerve by demonstrating that strychnine and naphthalene, previously shown to effect changes in the position of the retinal pigment in frogs, are effective only if the optic nerve is intact.—D. J. Shaad (Berkeley, Calif.).

2366. Chase, A. M. Photosensitive pigments from the frog's retina. *Amer. J. Physiol.*, 1938, 123, 36.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2367. Ciocco, A. Audiometric studies of school children. V. Changes in air conduction acuity after

an interval of five years, with particular reference to the effect of age and sex. *Ann. Otol., etc., St. Louis*, 1938, 47, 926-937.—Re-examination of 552 school children after an interval of five years reveals: (1) In the group as a whole, the frequency of high tone loss increased about 300%, while that of impaired perception for the tones of speech range increased only about 20 to 30%. (2) Of cases with a slight degree of impairment, about one fourth developed an impairment of greater degree, but the same type. (3) When a marked degree of impairment was present at the first examination, the same was found five years later. (4) The development of impairment involving in particular the tones of the low and middle range does not seem to be related either to sex or age. (5) The relative number of children who developed a slight high tone loss increased concurrently with the age of the children at the first examination. A marked high tone loss increased with age up to ten years and decreased thereafter. (6) The percentage of boys who acquired a marked high tone loss during the interval was three times that of girls.—W. J. Brogden (Johns Hopkins).

2368. Ciocco, A. Changes in the types of visual refractive errors of children. *Publ. Hlth. Rep., Wash.*, 1938, 53, 1571-1578.—"The first statistical study of the results of the repeated retinoscopic examination of 1481 white school children of Washington, D.C., re-examined after an average interval of almost 2½ years, reveals that: (1) The frequency of simple hyperopia was reduced by almost 20 percent while that of astigmatism (hyperopic and myopic) increased by about 40 percent, and of simple myopia by about 70 percent. (2) Over 75 percent of the eyes with any of the main types of refractive errors remained unchanged. . . . (3) The chances of a change in type of refractive error appeared to decrease with increase in age of the children." (Age range at first examination was from 6 to "14 and over.") "(4) Within the 2½-year interval the age specific incidence rate of myopia (simple and astigmatic) was highest for the children 10-11 years old at the first examination and was lowest for the children of 14 years and over. With regard to astigmatism (all forms), the age specific incidence rate was highest for children 6-7 and 12-13 years old. The lowest incidence of new cases of astigmatism was also found among the children of 14 years and over."—G. R. Thornton (Nebraska).

2369. Crozier, W. J., & Holway, A. H. Theory and measurement of visual mechanisms. I. A visual discriminometer. II. Threshold stimulus intensity and retinal position. *J. gen. Physiol.*, 1939, 22, 341-364.—An apparatus which permits a wide variety of studies of human visual function over a wide range of light intensities is described. Using this instrument, it was found that a direct correlation between visual sensitivity and the number of retinal elements does not exist. The form of the curve for binocular sensitivity is essentially the same as that for monocular sensitivity, but is more symmetrical about the center of the fovea. Also the magnitude of threshold stimulus intensity for the more sensitive

eye alone is less than that for the binocular response. "These results are shown to be consistent with the hypothesis that the process critical for the eventuation of the threshold response is localized in the central nervous system. They are not consistent with the view that the quantitative properties of visual data are directly determined by properties of the peripheral retina."—M. A. Rubin (Worcester State Hospital).

2370. Crozier, W. J., Wolf, E., & Zerrahn-Wolf, G. The flicker response function for the turtle *Pseudemys*. *J. gen. Physiol.*, 1939, 22, 311-340.—The curve describing the motor response of *Pseudemys* to visual flicker at constant temperature, with fixed proportion of light time in a flash cycle, is consistent with the histological observation that the retina of this turtle contains only cones. As the temperature is raised, the curve moves to lower intensities without change in shape or in its maximum. The excitability of the sensory elements in the turtle retina is given by the reciprocal of the mean critical intensity for response to the fixed flicker frequency. A plot of the reciprocal of the mean critical intensity as a function of temperature follows the Arrhenius equation, with a break at 29.5° C. This indicates that the alteration of excitability by temperature is due to changes in the velocity of an interrelated system of catalyzed processes common to all the sensory elements involved.—M. A. Rubin (Worcester State Hospital).

2371. Didion, H. *Art und Beeinflussung der Ohrgeräusche*. (The kinds and modifications of aural noises.) Heidelberg: Lipp, 1938. Pp. 31.—R. R. Willoughby (Brown).

2372. Doudoroff, P. Reactions of marine fishes to temperature gradients. *Biol. Bull. Woods Hole*, 1938, 75, 494-508.—The reactions of several species of marine fishes, chiefly of *Girella migricans* Ayres, to steep horizontal temperature gradients were studied. A marked selection was demonstrated of temperatures which were relatively high in comparison with the normal environment of the fishes. While acclimatization was found to influence selection, the effect was slight and only temporary, the selected temperature being to a large extent independent of past experience. The physiological and ecological significance of selection in the experimental gradient is discussed.—W. J. Brogden (Johns Hopkins).

2373. Fessard, A. Quelques suggestions apportées par la physiologie au problème du sens vibratoire. (Some suggestions from physiology concerning the problem of the vibratory sense.) *Année psychol.*, 1938, 38, 22-47.—"The discrete nervous impulses which, by their frequency, signal to the centers the intensity of the stimulus, are quickly transformed into step-like levels of excitation, and it is these levels, in which the trace of afferent periodicities is generally obscured, which seem to be the true instigators of the perceptual response. From this point it is no longer a question, in regard to the perception of vibration, of an intensity-frequency

paradox, since subjective impressions of intensity and of vibratory frequency find their probable physiological support in two distinct corresponding characteristics of the modulation of the central excitation: amplitude, from this point liberated from the rigid condition of 'all-or-none,' and rhythm, which is then able to play its role as such."—F. W. Finger (Brown).

2374. Girden, E. Cerebral determinants of auditory localization. *Amer. J. Psychol.*, 1939, 52, 1-15.—The present study reports the results of an investigation of the relationship between cerebral mechanisms and hearing. 4 dogs were conditioned to flex the forepaw when a sound stimulus came from the right, but not when it came from the left. Both pure tones and buzzers were used. The animals were then operated upon, tested for their retention of the localizing habit, and then autopsied. It was found that the habit was retained after (1) complete transection of the corpus callosum, and (2) extirpation of the right temporal lobe and some of the parietal and occipital cortex. Extirpation of both temporal lobes resulted in loss of the habit. In one animal the left hemisphere was removed, and subsequently the auditory area of the right hemisphere was removed in two operations, 2 weeks apart. Neither the removal of the left hemisphere nor the first operation on the right had any effect on the habit, but the second operation on the right side completely eliminated localization. In the case of a fifth animal the entire left cerebral hemisphere was extirpated before conditioning; the dog subsequently successfully learned the localization problem.—D. E. Johannsen (Skidmore).

2375. Grebe, H. Die Häufigkeit der erblichen und nichterblichen Blindheitsursachen. (The frequencies of hereditary and non-hereditary causes of blindness.) *Erbarzt*, 1938, No. 2. Pp. 20.—R. R. Willoughby (Brown).

2376. Jeffress, L. A. The case for, and some implications of the place theory of hearing. *Psychol. Rev.*, 1939, 46, 31-45.—When formulated as a whole, this theory holds that the basilar membrane and its associated structures are capable of spatial differentiation between sounds of different frequencies, and that pitch differences are solely due to these spatial distinctions; also that loudness is a function of the number of fibers innervated by the sound, and not a function of the frequency of innervation. The fact that the auditory nerve can conduct frequencies in excess of the refractory period is accounted for by Wever and Bray's volley theory. Experimental evidence, old and new, is reviewed for place as the basis and only basis of pitch, and for number of fibers as the basis of loudness. Certain implications of the place theory are suggested which are subject to verification, such as gradients of stimulation of the basilar membrane; volume as due to spread of excitation, and density to compactness of the region of stimulation; changes in cochlear acoustics causing pitch changes of stimuli; pitch differences of the two ears; temporary pitch aberrations due to learning;

filling out of incomplete patterns analogous to vision; hearing of complex tones below the threshold for pure tones, etc.—A. G. Bills (Cincinnati).

2377. Jerlang, E., & Dederding, D. Akustische und vestibuläre Funktionsstörungen nach temporaler retroganglionärer Trigeminotomie, Mitteilung aus der Abteilung für Nervenkrankheiten des Rigshospitals zu Kopenhagen. (Acoustic and vestibular functional disturbances after temporal retroganglionar trigemiotomy. A report from the Section for Nervous Diseases in the Rigshospital in Copenhagen.) *Acta oto-laryng.*, Stockh., 1938, 26, 625-630; *Acta Psychiat.*, Kbh., 1938, 13, 219-226.—Auditory symptoms after trigemiotomy do not seem to be well known. The authors studied them in 28 patients whose ages ranged between 31 and 75 years. Cases in which the relation of the auditory difficulties to the operation was not clear were excluded from the study. The latter revealed reduced hearing in 26 of the 28 patients 6 to 10 days after the operation. Further, the patients reported "stopple sensation" (*Klappenempfindung*), dizziness, nystagmus, and roaring in the ears. There was also variability of auditory acuity, of the "sound conduction" type. When examined 4 to 6 months later, some of the patients had regained normal hearing or improved, but other were unchanged or had even changed for the worse. Some patients also noticed that their dizziness or hardness of hearing varied from time to time. The authors explain the auditory-vestibular difficulties in question on the basis of a vascularly determined edema. The *Acta Psychiat.* version is published in English.—E. M. Pilpel (New York City).

2378. Jones, F. N. The stepwise phenomenon. *Amer. J. Psychol.*, 1939, 52, 125-127.—The problem of perception in animals is considered. The usual Gestalt description states that an animal trained to go to the brighter of two grays will still go to the brighter even when it is the same gray to which he had formerly responded negatively. It is found that this is not absolutely true. In a given group of animals this "relative" type of choice may be made from 50% to 95% of the time. Furthermore, if the original choice was between gray and black and the substitute choice between white and gray, an "absolute" choice tends to be made. When a long "overtraining" period was used with children, the relative shifted to the absolute type of choice. In some cases the reaction time is increased for the substitute series, indicating that the two situations are not perceived as identical. Various explanations of these difficulties are considered.—D. E. Johannsen (Skidmore).

2379. Judd, D. B. Estimation of chromaticity differences and nearest color temperature on the standard 1931 *ici* colorimetric coordinate system. *Bur. Stand. J. Res.*, Wash., 1936, 17, 771-779.—"Estimation of chromaticity differences has been facilitated by the preparation of a standard mixture diagram showing by a group of ellipses the scale of perceptibility at the various parts of the diagram.

The distances from the boundaries of the ellipses to their respective 'centers' all correspond approximately to the same number (100) of 'least perceptible differences.' The estimation of nearest color temperature has been facilitated by the preparation of a mixture diagram on which is shown a family of straight lines intersecting the Planckian locus; each straight line corresponds approximately to the locus of points representing stimuli of chromaticity more closely resembling that of the Planckian radiator at the intersection than that of any other Planckian radiator."—G. R. Thornton (Nebraska).

2380. Kleint, H. Versuche über die Wahrnehmung. (Investigations on perception.) *Z. Psychol.*, 1938, 142, 259-290.—In this extensive investigation, which is a continuation of similar work previously reported, the author considers isolated movement induction with reference to (1) autokinesis in the various sense modalities, (2) optic and bodily autokinesis during lateral eye fixation, (3) autokinesis and muscle tonus, and the place of these processes in the theory of perception of movement.—G. F. J. Lehner (Vermont).

2381. Kuvatov, G., & Archangelsky, V. [The influence of the extirpation of the superior cervical ganglion on corneal sensitivity in dogs.] *Probl. Physiol. Pathol. Organes Sens.*, 1936, 51-58; 211-212.—In 8 cases removal of the superior cervical ganglion was followed immediately by a decrease in corneal sensitivity; in 4 other instances a transitory increase preceded the diminution. In all animals sensitivity decreased progressively for several days, after which there was a return to the normal threshold. Influence of the sympathetic system upon sensitivity is indicated by these facts. English summary.—(Courtesy *Année psychol.*).

2382. Le Grand, Y., & Geblewicz, E. Recherches sur le papillotement. La dualité de la vision aux brillances élevées. (Experiments on flicker. The duality of vision at high intensities.) *Année psychol.*, 1938, 38, 1-22.—Studying the light-adapted eye at different intensity levels, the investigators found that more complicated laws govern peripheral than central vision. In the former there is a dissociation between chromatic and achromatic properties: at a certain flicker frequency color is abolished and the brightness of monochromatic light is diminished, while the brilliance of white light remains constant. These effects are due not to peripheral activities, but probably to factors operating at the transmission or central level. The writers discuss the implications of the results in relation to general visual theory.—F. W. Finger (Brown).

2383. Lewis, D., & Lichte, W. H. Masking and the perception of a series of successively prominent partials in a vocal sound. *J. acoust. Soc. Amer.*, 1939, 10, 255-256.—Abstract.—S. S. Stevens (Harvard).

2384. Ludvigh, E. Determination and significance of the scotopic retinal visibility curve. *Arch.*

*Ophthal., Chicago*, 1938, 20, 713-725.—The retinal scotopic visual curve was calculated from accepted data by taking into account absorption of light by the ocular media. The equation of this curve converted into quanta, with the most acceptable determination of the absorption of visual purple, indicates very close agreement, and eliminates certain questionable assumptions which seemed necessary to explain the shift of the Hecht and Williams visibility curve as compared with Koettgen and Abelsdorff's curve for absorption of visual purple.—M. R. Stoll (Mass. Eye & Ear Infirmary).

2385. McCullough, A. W. Some reactions of *Naegleria bistadialis* [Protozoa] to light intensity patterns. *Trans. Kans. Acad. Sci.*, 1937 (1938), 40, 385-388.—(Biol. Abstr. XIII: 432).

2386. Morse-Peckham, R. (Dir.) Optometric methods of correcting strabismus in children six months old and upward without using special exercises. Detroit: Optometric Research Institute, 1938. (Clinical Report No. 5.) Pp. 101. \$1.00.—Successful treatment of squint involves the breaking down of wrong neuromuscular associations, with subsequent establishment of a correct association which permits the two eyes to fixate simultaneously. In the majority of the 52 cases here presented in detail, success was achieved by the constant wearing of exercise prisms (base in for convergent squint, etc.) and the use of bifocals. In other cases, especially in divergent squints, correcting vertical prisms were helpful. Use of occluders, colored lenses over one eye, and limiting the apertures of the lenses in different directions proved advantageous in some instances. No theories or definite rules for procedure are advanced in conclusion, but a descriptive summary of procedures is given, with the implication that each case represents a problem to be approached by a trial-and error method.—M. R. Stoll (Mass. Eye & Ear Infirmary).

2387. Murray, E. Binocular fusion and the locus of 'yellow.' *Amer. J. Psychol.*, 1939, 52, 117-121.—The author criticizes Bugg's interpretation of the V after-image obtained from the binocular fusion of R and G (*Amer. J. Psychol.*, 1938, 51, 769 f.). The difficulties of trying to get along in color theory on a trichromatic, rather than a tetrachromatic, basis are considered.—D. E. Johannsen (Skidmore).

2388. Nichols, R. H., & Firestone, F. A. An investigation of auditory fatigue, especially as applied to the determination of subjective harmonics. *J. acoust. Soc. Amer.*, 1939, 10, 255.—Abstract.—S. S. Stevens (Harvard).

2389. Oda, D. Observations on the pathology of impaired hearing for low tones. *Laryngoscope, St Louis*, 1938, 48, 765-792.—35 ears with a past history of impairment for low tones were examined histologically. In 4 ears no lesion was found to explain impairment of hearing for low tones. The evidence as to localization for the lower tones does not support the theoretical view that there is even a moderately restricted area of response to these frequencies.—W. J. Brogden (Johns Hopkins).

2390. Orbison, W. D. **Shape as a function of the vector field.** *Amer. J. Psychol.*, 1939, 52, 31-45.—The present study deals with an attempt experimentally to verify for geometric patterns the Gestalt equation  $\Sigma R$  (restraining field forces) =  $\Sigma C$  (cohesive field forces), proved by J. F. Brown and A. C. Voth (*Amer. J. Psychol.*, 1937, 49, 543-563) for movement. Cohesive field forces are treated as functions of the spatial separations between the objects in the field, and it is assumed that they increase as the spatial separations between the objects decrease. Upon three different field patterns were placed different simple figures and lines. The distortions induced experimentally were then compared with the theoretically predicted distortions. The S's were 30 faculty members and major students in psychology. In every case and for all S's the observable distortion agreed with that predicted by the theory. Thus the vector-field theory is found to hold for stable configurations as well as for movement.—D. E. Johannsen (Skidmore).

2391. Perlman, H. B. **Hyperacusis.** *Ann. Otol., etc.*, St. Louis, 1938, 47, 947-953.—W. J. Brodgen (Johns Hopkins).

2392. Saxén, A. **Diskussion zu Saxen's Referat: Pathologie und Klinik der Altersschwerhörigkeit, nach Untersuchungen von H. von Fieandt und Arno Saxén.** (Erschienen als Supplementum XXIII in *Acta Oto-Laryngologica*, 1937.) (Discussion of Saxén's survey article on the pathology and clinic of hardness of hearing in old age, which appeared as Supplement XXIII in *Acta Oto-laryngologica*, 1937). *Acta oto-laryng.*, Stockh., 1938, 26, 414-424.—Dederding points out, on the basis of experimental and statistical studies, that in most cases of merely senile hardness of hearing there is merely slowing of bone conduction and no central change or change in the middle ear. Mygind thinks the slowed bone conduction is due to a hindrance of the fenestral oscillations. He attaches special importance in this connection to increased endolabyrinthine pressure, possibly ascribable to intra-cellular edema. Additions to the discussion are also contributed by Skoog, Thornval, Meurman, and Saxén himself.—E. M. Pilpel (New York City).

2393. Schmidt-Durban, W. **Experimentelle Untersuchungen zur Typologie der Wahrnehmung.** (Experimental investigations on the typology of perception.) *Neue psychol. Stud.*, 1939, 15, H. 2. Pp. 85.—The author discusses the fundamental types of personality with respect to their structure of perception. The polar types described as A and GG correspond with similar differentiations made by other theories of types (Kretschmer). "A" is the analytic type and "GG" the synthetic, and they correspond with the schizothyme and the cyclothyme type of personality. A number of optical experiments were made to investigate the constancy of the behavior of the two types and to relate them to a third type (suggested by Krueger and Sander), the so-called "plastic." 8 experiments were performed, 6 of them quantitative and 2 qualitative. The

results showed a considerable fluctuation; not one of the tests helped to find an adequate place for an individual between A and GG; thus "the one-dimensional typology should be completed by the third type, the 'plastic.'" This type contains in various combinations A- and GG-structures. It is a later developed type and occupies a higher level of structure than A and GG. Investigations of a typology of perception must consider this plastic type especially.—M. Heiman (Fulton State Hospital, Mo.).

2394. Schmilewski, W. **Die Otoaudion-Untersuchung bei Taubstummen und das Langenbeck'sche Symmetriegesetz.** (Audiometer investigations of deaf mutes and the Langenbeck law of symmetry.) Greifswald: Adler, 1937. Pp. 27.—R. R. Willoughby (Brown).

2395. Siirala, U. **Über die Art der Schwerhörigkeit bei Volksschulkindern und ihr Verhältnis zur Konstitution.** (On the nature of hardness of hearing in public school children and its relation to constitution.) *Acta oto-laryng.*, Stockh., 1938, 26, 591-597.—This paper reports the findings in a study of the nature and cause of hardness of hearing in 117 cases in Finnish school children. In 83.3% of the cases the basis of the reduction in hearing was in the middle ear, in 14.1% in the inner ear, and in 2.6% in the auditory canal (*Gehörgang*). Of the changes in the middle ear the most important was blocking of the Eustachian tubes, with its consequences. This was sometimes associated with the residua of acute suppurative processes. Next in descending order of frequency came the "chronic suppurative inflammations of the middle ear, with marginal or central defect of the ear drum (which in one case was of a typically tuberculous nature), and the consequences of a suppurative otitis media in the form of persisting perforation, scar, or radical hole. Acute suppurative middle-ear inflammation was represented by only a single case of bilateral otitis. This is understandable, since a child with acute otitis stays at home and is not present for a school examination." Of the cases of obstruction of the outer ear 80%, but of cases of chronic suppurative otitis media with residua only 33%, showed adenoid growths.—E. M. Pilpel (New York City).

2396. Smith, K. U. **Visual discrimination in the cat: VI. The relation between pattern vision and visual acuity and the optic projection centers of the nervous system.** *J. genet. Psychol.*, 1938, 53, 251-272.—Of 3 cats with complete bilateral occipital lobectomies (plus small lesions of the right superior colliculus in 2 cases), 1 never (300 trials) achieved a 90% criterion for 10 trials in discriminating a horizontal from a vertical luminous bar. A second met the requirement twice in 340 trials; the third (no collicular involvement) performed consistently at the 90% level after 240 trials. 3 normal animals met the criterion in 80-140 trials. Visual acuity, as judged by optic nystagmus to moving strips, did not differentiate operated from normal animals. The author suggests that the results necessitate a revision of

theories of the anatomical basis of pattern vision.  
—D. K. Spelt (Mississippi).

2397. Syldath, F. **Typologische Verschiedenheiten in der Wahrnehmung.** (Typological differences in perception.) *Arch. ges. Psychol.*, 1938, 101, 395-432.—On the basis of degree of effectiveness of optical illusions the subjects were grouped in the analytical or totalizing types proposed by Ehrenstein. For the latter group brightness transformation, the Aubert-Förster phenomenon, and spatial and dynamic complex qualities were more marked. Contrast phenomena seemed independent of totalized trends in the structure of consciousness. They are accordingly referred to a more primitive kind of physiological response.—H. D. Spoerl (American International College).

2398. Szepsenwol, J. **Transplantation des yeux chez un poisson adulte et son effet sur les chromatophores.** (Transplantation of eyes in an adult fish and its effect on the chromatophores.) *C. R. Soc. Biol., Paris*, 1938, 129, 1265-1267.—Experiments made on the adult fish *Fitzroya lineata*, on which an ocular transplantation had been performed, showed a humoral influence of the retina on the contraction of pigment cells.—G. Goldman (Sorbonne).

2399. Tinker, M. A. **Illumination standards for effective and comfortable vision.** *J. consult. Psychol.*, 1939, 3, 11-19.—Consulting psychologists should be informed regarding adequate and hygienic factory illumination. Proof is submitted to show that recommendations for light intensities needed for specific visual tasks are often based upon misinterpreted data. Intensity of light is measured in foot-candles, and tables are given to indicate the approximate light intensities from different sized frosted bulbs as well as critical levels of brightness for efficient performance in reading, school achievement, sorting mail, type setting, computing arithmetic problems, clerical work, and surgical operations, as well as for corridors, tennis courts, and drafting rooms. For reading, the critical level is between 3 and 4 foot-candles. In industry most operations can be performed comfortably and efficiently under approximately 10 foot-candles of light. For exacting visual tasks 20 to 25 foot-candles are required.—P. S. de Q. Cabot (Simmons).

2400. Waals, H. G. v. d., & Roelofs, C. O. **Veränderung der optischen Lokalisation bei optokinetischer Reizung durch Bewegung um die sagittale Achse.** (Changes in optical localization through optokinetic stimulation by movement in the sagittal plane.) *Z. Psychol.*, 1938, 142, 200-232.—Under the influence of small stimulating lights moving about a sagittal axis it was found that the eyes showed a characteristic involuntary rotation, but the optical localization involved was identical with that observed in voluntary eye movements. The neurological basis of optokinetic and related phenomena is discussed.—G. F. J. Lehner (Vermont).

2401. Warlet, H. A. **Le relatif et l'absolu dans la perception des grandeurs chez le cobaye.** (The

relative and the absolute in the perception of size by the guinea pig.) *Bull. Soc. Sci. Liège*, 1936, Nos. 3-4, 101-105.—The experimental animal was first trained to obtain food from a box marked with a strip of white cardboard longer than that marking an empty box (470 trials). When the absolute lengths were varied, the animal continued to choose the longer; similar results followed the use of geometric patterns. Then the guinea pig was trained to approach the box which was indicated by a cardboard strip of fixed length, while the negative sign was either larger or smaller (28 trials). This habit was retained with either simultaneous or successive presentations of the boxes.—(Courtesy *Année psychol.*).

2402. Wohlfahrt, T. A. **Über rhythmisches Gefühl und relative Tonunterscheidung bei Elritzen.** (Concerning rhythmical stimulation and relative tonal differentiation in minnows.) *S. B. Ges. Morph. Physiol. München*, 1936, 45, 1-7.—The author presents a critical review of the literature concerning vibratory (tonal) discrimination in fish, and discusses his own experiment, in which a fish was trained to make relative tonal discriminations.—G. F. J. Lehner (Vermont).

2403. Wright, W. D. **Light adaptation at the fovea for normal eyes.** *Brit. J. Ophthalm.*, 1939, 23, 51-67.—A new model of the subjective photometer is described, in which the effects of adapting the eye to a given intensity are recorded by matching the test patch received in the light-adapted right eye against a similar patch seen in the constantly dark-adapted left eye. Observations on more than 100 observers have been recorded and are analyzed. The data include the intra-ocular factor, that is, the sensitivity of the right eye relative to the left when both eyes are dark-adapted, the adaptation factor, which gives the factor by which the sensitivity of the eye is reduced for the given adaptation intensity (6000 photons), and the recovery curve, which records the recovery of sensitivity after the adapting light has been removed. Among normal observers, two types of recovery curve have been found, a direct and a delayed recovery, in the latter of which no recovery is recorded for the first few seconds after the removal of the adapting light. The results are discussed in relation to the susceptibility of different observers to glare, to the photochemical reaction in the retina, and to the application of the method for pathological investigations.—R. J. Beitel, Jr. (American Optical Company).

[See also abstracts 2262, 2271, 2272, 2276, 2277, 2298, 2328, 2343, 2405, 2444, 2451, 2456, 2459, 2460, 2593, 2613, 2621, 2637, 2682, 2698, 2753.]

#### LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

2404. Abel, T. M. **Neuro-circulatory reaction and the recall of unfinished and completed tasks.** *J. Psychol.*, 1938, 6, 377-383.—Ratios of unfinished

tasks recalled to finished tasks recalled were obtained from 48 girls and 27 boys of 15 or 16 years. The tasks were 18, given as a test, and the request to recall was made as informally as possible. Schneider indices, which consist in a systematic treatment of a series of measurements of pulse rate and blood pressure under various conditions of rest and activity, were also obtained for these subjects. In the group with high Schneider indices (11-14), 66.7% recalled more interrupted tasks and only 29% recalled more completed tasks; of those with medium indices (7-10) 31% recalled more interrupted tasks and 46% more completed ones; and of those with low indices (0-6) 12% recalled more interrupted tasks and 84% more completed ones. These results were statistically significant. By way of tentative interpretation, the writer points out that completion or non-completion has been found associated with personal success or failure among those who recall more completed tasks. They boast of their successes and repress their failures. The fact that low Schneider indices are also associated with recall of more completed tasks suggests that these individuals are less easily adjusted, or less adaptable. Fatigued and bored individuals have been shown to recall as many completed as interrupted tasks, and such conditions tend to produce either medium or low Schneider indices.—J. McV. Hunt (Brown).

2405. Anderson, V. A. Auditory memory span as tested by speech sounds. *Amer. J. Psychol.*, 1939, 52, 95-99.—The problem of the present study was to determine the nature of the auditory memory span when the stimulus material is predominantly auditory and of such a type as not to lend itself to visualization. 14 vowel, diphthong, and voiceless consonant sounds were used; they were presented in a monotone at the rate of 1 per second. Reproduction was immediate and oral. 132 S's served. The results showed no reliable sex differences. The average vowel score was 4.73; the consonant score was 3.83. The  $r$  between the vowel and consonant scores was .47. No relationship was found between the memory span and auditory acuity or pitch discrimination. The  $r$  between grades in foreign languages and auditory memory span was  $.34 \pm .05$ . The auditory memory span is positively but moderately related to intelligence, school grades, and knowledge of English usage.—D. E. Johannsen (Skidmore).

2406. Brogden, W. J. Unconditioned stimulus substitution in the conditioning process. *Amer. J. Physiol.*, 1938, 123, 24.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2407. Brogden, W. J. Unconditioned stimulus-substitution in the conditioning process. *Amer. J. Psychol.*, 1939, 52, 46-55.—The problem of the present study was to determine whether it is possible to substitute novel stimuli for each of the two functions of an US, i.e., (1) character of the response, and (2) drive to actuate this response. 8 mongrel dogs were conditioned to flex the left foreleg to the sound of a bell; the US was an electric shock. After condi-

tioning was 100% perfect, the correct response, i.e., flexion at the sound of the bell, was rewarded by food, though the US was never applied except to 3 animals used as controls. The results: "(1) Substitution of food for the re-enforcing function of shock in maintaining a consistent conditioned flexion-response to bell was made with relative ease in 5 animals. . . . (5) Conditioned flexion to bell reinforced by food does not differ in frequency and latency of response from conditioned flexion to bell reinforced by shock. . . . (6) Since food given alone at no time evoked flexion in any of the animals, it was neither an US nor a CS for foot-withdrawal. Food, therefore, effectively substituted for the reinforcing function of shock, the US for forelimb-flexion."—D. E. Johannsen (Skidmore).

2408. Brown, Fred. Does the IQ wander? *Minn. J. Educ.*, 1938, Dec., 169-170.—Recent experimental findings related to the constancy of the IQ are briefly reviewed. The author concludes that although individual variations will occur as a consequence of emotional blocking during the examination, physical debility, poor co-operation, or inefficient testing, "the IQ will remain constant within a very narrow range so long as the child's environment remains relatively constant."—M. Keller (Butler Hospital).

2409. Buel, J. A correction to "A criticism of Hull's goal gradient hypothesis." *Psychol. Rev.*, 1939, 46, 86-87.—A. G. Bills (Cincinnati).

2410. Cate, J. ten. Bedingte Reflexe bei Hunden nach beiderseitiger Exstirpation der Regio occipitalis der Grosshirnrinde. (Conditioned reflexes in dogs after bilateral extirpation of the occipital region of the cerebral cortex.) *Arch. néerl. Physiol.*, 1938, 23, 219-253.—Working with dogs subjected to bilateral extirpation of the occipital cortex, the author found them to behave as though blind in ordinary life situations. Gradually there was some compensation through the tactile and olfactory senses. In such dogs conditioned reflexes to gross differences in brightness could be set up, thus admitting of very crude conditioned reflexes to optical stimuli. These conditioned reflexes were not disturbed by bilateral lesions in the cortex bordering on the original lesion. Moreover, they were not disturbed by bilateral lesions in the frontal lobes (1 dog). Thus, as indicated by the work of others, one may conclude that the conditioned reflex to brightness differences can be instated subcortically.—C. P. Stone (Stanford).

2411. English, H. B., & Killian, C. D. The constancy of the IQ at different age levels. *J. consult. Psychol.*, 1939, 3, 30-32.—A report on the records of children in the IQ range 70-130 who had at least three Stanford-Binet tests at intervals of a year or more. "It is extremely difficult to modify the IQ . . . we may expect the ordinary psychiatric clinic case to show a variation between 3.5 and 5.5 IQ in the old S-B, and somewhat closer to the latter figure in most cases." Under ordinary conditions there is a relatively small amount of variability.—P. S. de Q. Cabot (Simmons).

2412. Freeman, G. L. **The problem of set.** *Amer. J. Psychol.*, 1939, 52, 16-30.—Mental "set" is a term that has frequently been used to explain otherwise anomalous experimental results, but it has never been adequately defined. The author presents an hypothesis in terms of both postural responses and central nervous function. "Set" is a central expression of the limiting effect of proprioceptive-tonic activity upon exteroceptive-phasic activity. It is shown that at any given moment the organism is exposed to a great mass of internal and external excitants and that without some internal regulation there would be an indiscriminate diffusion of afferent discharge throughout the nervous system." Various propositions for experimental testing are suggested. "When the work of testing these propositions is finally completed it may be possible to regard the concept of set as physiologically superfluous and speak in the more ultimate terms of neural facilitation, lowered thresholds, or altered potential-gradients."—D. E. Johannsen (Skidmore).

2413. Freeman, G. L. **A preliminary study of the rôle of postural adjustment in conditioning.** *Amer. J. Psychol.*, 1939, 52, 89-94.—The present experiment, performed on one dog, was undertaken to check the hypothesis "that tonic response segments may come to anticipate or 'set' the associated phasic response in the process of repeated stimulation and 'conditioning.'" The UCS was always a shock; 4 CS's, tones from 100 to 1000 cycles, were used in the following pattern: (1) CS<sub>1</sub>—UCS always applied to right rear paw; (2) CS<sub>2</sub>—UCS applied to R or L rear paw in a random order; (3) CS<sub>3</sub>—UCS applied to R or L rear paw, or R front paw; (4) CS<sub>4</sub>—UCS applied to any paw. Records were made of muscle activity. It was found that a differential postural adjustment was made to the first situation within 20 trials; the other differentiations took longer, and (3) was never specifically differentiated. These data are discussed from a theoretical point of view.—D. E. Johannsen (Skidmore).

2414. Gantt, W. H. **The nervous secretion of saliva: the relation of the conditioned reflex to the intensity of the unconditioned stimulus.** *Amer. J. Physiol.*, 1938, 123, 74-75.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2415. Havermans, F. M. **De magie in het denken van schizophrenen en natuurvolken.** (Magical thinking of schizophrenes and primitive peoples.) Roermond: Romen, n. d. Pp. 144.—This study is based on Schmidt's work "Der Ursprung der Gottesidee," which emphasizes the rationality of primitive (regressive) thinking involving a clearly defined theism. The author concludes that a comparison between the two types of thinking does not contribute to a better understanding of either group.—H. Beaumont (Kentucky).

2416. Hildreth, G. **Characteristics of young gifted children.** *J. genet. Psychol.*, 1938, 53, 287-311.—An analysis and comparison of test and observation records of 50 Jewish children 3-9 years old, with IQ's over 130 on the Stanford-Binet test,

and of similar records of 50 control cases from the same school, matched for race, sex and age, with IQ's of 90-110. The gifted group elicited favorable comments on "intellectual, personality and character traits" five times as often during testing as did the normals, and unfavorable comments from the examiner only one-fifth as often. 8 verbatim excerpts from test reports on gifted children are included, and differences between groups are discussed.—D. K. Spelt (Mississippi).

2417. Lawton, G. **Mental abilities at senescence: a survey of present-day research.** *J. appl. Psychol.*, 1938, 22, 607-619.—After a critical review of several studies of the mental ability of the aged, it is concluded that none is adequate. Direct citation of the investigations considered is not given.—E. Ghiselli (Maryland).

2418. McCulloch, T. L. **Comment on the formation of discrimination habits.** *Psychol. Rev.*, 1939, 46, 75-85.—Evidence for the validity of scores on discrimination habits is extremely scant. Doubt has been cast on the validity of using total scores to represent learning ability, both by Lashley's conclusion that the association is formed suddenly and is unaffected by previous or subsequent trial and error, and by Krechevsky's theory that the learner adopts and rejects a number of irrelevant hypotheses before finally adopting the successful one, so that time spent on the earlier hypotheses is no measure of learning. But according to association theory, all stimuli acting at the time of response become associated with that response. Hence cumulative learning should occur even when an animal is exhibiting "hypotheses." McCulloch and Pratt corroborated this when they gave three groups of rats different amounts of training on a weight discrimination habit, and, on reversing the cues, found negative transfer proportional to the length of training on the original habit. Krechevsky's evidence contradictory to the continuity hypothesis is reviewed, and it is pointed out that this evidence actually supports the hypothesis, since Group III of his study showed negative transfer on reversal of cues, even though they had not yet begun to respond systematically to relevant stimuli in the original set-up.—A. G. Bills (Cincinnati).

2419. Newman, E. B. **Forgetting of meaningful material during sleep and waking.** *Amer. J. Psychol.*, 1939, 52, 65-71.—The present study reports results of experiments on forgetting meaningful material after equal sleeping and waking periods. 3 short stories (300 words) were constructed so as to contain 12 items not essential to the plot; each one had 12 essential items. 11 S's read each story, at a different time of day, and reproduced it approximately 8 hours later. The reproductions were scored by 3 judges independently. Results showed that the average amount of essential material retained was 86% after waking and 87% after sleeping. The average amount of non-essential material retained was 23% after waking and 47% after sleeping. In other words, non-essential material behaves like the

nonsense material of other investigators. This is interpreted to mean that forgetting is an active process, which is much retarded by the inherently organized character of meaningful material.—D. E. Johannsen (Skidmore).

2420. Razran, G. H. S. **Extinction, spontaneous recovery, and forgetting.** *Amer. J. Psychol.*, 1939, 52, 100-102.—If an extinguished CR has recovered some of its lost ground after a lapse of time, 3 hypotheses are possible: (1) the amount of recovery is in some way proportional to the amount of extinction; (2) the amount of recovery is affected in some degree by the forgetting of some part of the non-extinguished portion of the CR; (3) the recovery itself may also suffer from some forgetting. These three hypotheses were checked experimentally, using a constant recovery time (48 hr.) and varying the degree of extinction. 12 human adults served as S's. The salivary response was conditioned to a red light. 4, 8, 12, 16, 20, and 24 extinction trials were used. The results were analyzed in terms of the 3 hypotheses and the conclusions drawn "(a) that the amount of spontaneous recovery of a partly extinguished CR is a composite function of the amount of extinction and of the amount of forgetting of the non-extinguished portion of the CR; and (b) that the slope of recovery is much steeper than that of forgetting. After 48 hr. the amount of forgetting was 14% and of recovery 53%-57%."—D. E. Johannsen (Skidmore).

2421. Razran, G. H. S. **A simple technique for controlling subjective attitudes in salivary conditioning of adult human subjects.** *Science*, 1939, 89, 160-161.—In order to avoid any influence on experimental results caused by subjects' attitudes toward "what is expected," etc., the author misinformed them. Stimuli were presented during continuous eating periods, and the subjects were told that the conditioned stimuli were presented to determine their effect upon digestion. As the real object was to determine the acquisition of salivary responses to the stimuli, the attitude of the misinformed subject had no effect.—F. A. Mote, Jr. (Brown).

2422. Spence, K. W. **A reply to Dr. Razran on the transposition of response in discrimination experiments.** *Psychol. Rev.*, 1939, 46, 88-91.—Four specific criticisms are answered: (1) the argument that the fact of progressive restriction of generalization, with learning, implies also a progressive restriction of the transposition range; (2) the attack on the assumption that the range of generalization may be less with stimuli of smaller magnitude; (3) the claim that Spence has neglected the facts of relational and pattern conditioning; and (4) the question whether relational (Gestalt) concepts are or are not as fruitful of testable logical hypotheses as simple conditioning in this field.—A. G. Bills (Cincinnati).

2423. Thorndike, R. L. **Note of "IQ changes in foster children" by Emmett L. Schott.** *J. appl. Psychol.*, 1938, 22, 662.—Gains in IQ made by children after being placed in foster homes, stated

to be insignificant (Schott, *J. appl. Psychol.*, 21, 107-112) are shown to be statistically significant.—E. Ghiselli (Maryland).

[See also abstracts 2251, 2288, 2325, 2326, 2342, 2430, 2503, 2507, 2589, 2597, 2745, 2748, 2762.]

## MOTOR AND GLANDULAR RESPONSES (incl. Emotion, Sleep)

2424. Albert, R. **Über die Vererbung der Handgeschicklichkeit.** (The inheritance of manual dexterity.) *Arch. ges. Psychol.*, 1938, 102, 1-63.—21 family groups, each consisting of a child aged 9-12, both parents and all grandparents, and 13 incomplete groups including usually child and parents, were tested for manual dexterity. The variety of tests included wire bending, bead stringing, crank turning, and modelling. In general, consistent agreement in goodness of performance was found between parents in one generation and their offspring. It is concluded that a hereditary basis must be assumed, since there is little relation between the results and opportunities for training, especially vocational.—H. D. Spoerl (American International College).

2425. Algman, D., & Goldshine, A. D. **Cold as a standard stimulus of blood pressure: a study of normal and hypertensive subjects.** *New Engl. J. Med.*, 1938, 219, 650-655.—Blood pressure reaction to a cold stimulus was tested in 48 normal subjects and 88 patients with hypertension. The test caused a rise in blood pressure two to four times greater in the hypertensive patients than in the subjects with normal blood pressure.—W. J. Brogden (Johns Hopkins).

2426. Anderson, E. E. **The interrelationship of drives in the male albino rat: III. Interrelations among measures of emotional, sexual and exploratory behavior.** *J. genet. Psychol.*, 1938, 53, 335-352.—4 measures of emotional behavior, such as amount of defecation and time required to leave the living cage, were used with a group of 91 male albino rats, together with 2 measures of sexual activity (frequency of copulation and of vaginal plugs) and 1 of exploratory behavior. The exploratory test did not correlate significantly with other tests. The 4 tests of emotional activity gave positive intercorrelations (.26-.53) of which all but the lowest were significant; they yielded significant negative correlations with sexual tests (-.34 - -.58). A thyroid-pituitary-gonad mechanism is tentatively suggested as accounting for this consistent relation between scores on emotional and sexual tests, and methods of studying emotional activity in the rat are evaluated.—D. K. Spelt (Mississippi).

2427. Baccino, M. **Etude de l'influence de la lumière colorée sur la croissance des jeunes homéothermes (lapereaux, cobayes et rats blancs).** (A study of the influence of colored light on growth in young warm-blooded animals: rabbits, guinea pigs, and white rats.) *C. R. Soc. Biol., Paris*, 1938, 128,

767-769.—Exposure to colored light brings about a general change in the rhythm of growth in young warm-blooded animals, green and blue being more effective than red. A permutation of colors, particularly the complementary colors red and green, reverses the relative growth of the animals. The author plans to continue his study by investigating the factors of length and intensity of the light wave and the range of the adaptation periods.—*G. Goldman* (Sorbonne).

2428. **Ball, J.** Partial inhibition of sex activity in the intact female rat by injected estrin. *Endocrinology*, 1938, 23, 197-199.—8 adult female rats were injected with estrin for two months, each animal receiving changing doses which varied from 0.25 to 5 R.U. a day. Cyclic changes in sexual excitability were prevented by this treatment. Behavior during the injection period showed a fairly constant low degree of sexual receptivity, rated 0 to 3 on a scale of 12, whereas the untreated heat periods before and after estrin administration were characterized by peak ratings of 7 to 12 in most cases.—*W. J. Brogden* (Johns Hopkins).

2429. **Beach, F. A., Jr.** Sex reversals in the mating pattern of the rat. *J. genet. Psychol.*, 1938, 53, 329-334.—A male rat capable of normal masculine sexual activity showed typical female reactions to a more aggressive male. 7 surgically sterilized virgin females mounted and palpated a non-copulating male, later reverting to the normal female pattern when the male became aggressive. The atypical behavior of females has not been seen after the initial sexual experience.—*D. K. Spelt* (Mississippi).

2430. **Bentley, M.** Oxygen-tension and 'the higher mental processes.' *Amer. J. Psychol.*, 1939, 52, 72-82.—The present report is of a study which made an effort to check Gellhorn's experimental results, which indicated that O-deprivation made S give less common associations to the Kent-Rosanoff list. Four trained S's were given 50 words from the K-R list under two conditions: (1) they were required to drink a sip of slightly tinted water before each stimulus-word was presented, and (2) they reacted with a constricting bandage tied around the upper arm. The results of the responses made under these conditions agreed with Gellhorn's results under O-deprivation, i.e., there was an increase in the number of unusual responses. The introspective reports indicated that the drink or the constriction tended to incline "the organism toward a biographical reference." It is emphasized that a large group of psychological factors which affect performance and output are present in all the experiments on O-deprivation. Granting that certain bodily changes result under this condition, it is still necessary to take account of all the factors.—*D. E. Johannsen* (Skidmore).

2431. **Boling, J. L., Young, W. C., & Dempsey, E. W.** Miscellaneous experiments on the estrogen-progesterone-induced heat in the spayed guinea pig. *Endocrinology*, 1938, 23, 182-187.—Estrogen-induced

heat and estrogen-progesterone-induced heat differ in several respects. The beginning of estrogen-induced heat is less well defined. The length of estrogen-induced heat in the animals studied was frequently longer. The injection of progesterone after the end of an estrogen-induced heat is followed by a second heat period, whereas an injection following an estrogen-progesterone-induced heat is without effect. Adult spayed guinea pigs can be brought into heat as often as five times within a period that approximates the length of a normal cycle.—*W. J. Brogden* (Johns Hopkins).

2432. **Bozler, E.** Excitability and conduction in visceral muscle. *Amer. J. Physiol.*, 1938, 123, 20.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2433. **Braun, G. L., & Hellebrandt, F. A.** The influence of sex and age on postural stability. *Amer. J. Physiol.*, 1938, 123, 21-22.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2434. **Brunswik, E., & Reiter, L.** Eindruckscharaktere schematisierter Gesichter. (Impression characteristics of schematized faces.) *Z. Psychol.*, 1938, 142, 67-134.—A graphic, schematized normal human face, the proportions of which could be systematically changed by changing eye width, height of forehead, position of the mouth, and length of nose, giving a total of 189 used variations, was presented to 10 subjects, who gave their rank order preferences. In general, seven pairs of opposite judgments are clearly evident: the impression of "happy-sad," of "young-old," of "good-bad," of "sympathetic-unsympathetic," of "beautiful-ugly," of "intelligent-unintelligent," and of "energetic-unenergetic." The impression value of the different facial variables is given in detailed analysis.—*G. F. J. Lehner* (Vermont).

2435. **Burge, W. E.** Further study on electrical polarity in the animal in relation to anesthesia and unconsciousness. *Amer. J. Physiol.*, 1938, 123, 27.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2436. **Cole, K. S., & Curtis, H. J.** Electric impedance of *Nitella* during excitation. *Amer. J. Physiol.*, 1938, 123, 41.—Abstract.—*T. W. Forbes* (Yale Bureau for Traffic Research).

2437. **Collins, V. J., Boling, J. L., Dempsey, E. W., & Young, W. C.** Quantitative studies of experimentally induced sexual receptivity in the spayed guinea pig. *Endocrinology*, 1938, 23, 188-196.—Experimentally induced heat in the guinea pig will last for 5 or more days with single injections of theelin and for 8 or more days with progynon-B. The latent period and duration of heat are inversely related and for a given procedure their sum approximates a constant. The latent period does not increase or the duration of heat decrease in animals brought into heat after long periods of treatment. An "all-or-none" mechanism of sexual receptivity is postulated.—*W. J. Brogden* (Johns Hopkins).

2438. Dantchakoff, V. *Sur les effets de l'hormone mâle dans un jeune cobaye femelle traité depuis un stade embryonnaire (inversions sexuelles).* (On the effects of the male hormone on a young female guinea pig treated from the embryonic stage: sexual inversions.) *C. R. Soc. Biol., Paris*, 1938, 127, 1255-1258.—A study is given of the sexual evolution of an animal which had received during its embryonic life the imprint of two factors: the female genetic determinism, which had built up the female sex organs, and injections of the male hormone, which had caused the development of the male sex organs. The mechanism of the determination of sex is interpreted as depending upon the elective action of simple chemical bodies on the plastic substrata (germinal cells), which are relatively bisexual.—G. Goldman (Sorbonne):

2439. Dantchakoff, V. *Sur les effets de l'hormone mâle dans un jeune cobaye mâle traité depuis un stade embryonnaire (production d'hypermâles).* (On the effect of the male hormone on a young male guinea pig treated from the embryonic stage: production of hypermale animals.) *C. R. Soc. Biol., Paris*, 1938, 127, 1259-1262.—G. Goldman (Sorbonne).

2440. Dohlman, G. *On the mechanisms of transformation into nystagmus on stimulation of the semicircular canals.* *Acta oto-laryng., Stockh.*, 1938, 26, 425-442.—The study reported here was made on rabbits in which the ocular muscle had been laid bare. Movements instigated by stimulation of the vestibular nerve were transferred from this muscle to a pendulum furnished with a concave mirror, and kymographic records were made of the movements. The mechanism of ampullar movement was also studied by means of injections of china ink into the semicircular canals. The author concludes from his electrical study of the vestibular nerve that the vestibulo-ocular reflex represents a "slowly reacting reflex system" which as such may explain the origination of the slow phases. In all probability the stimulation is here conducted through the triangular nucleus and the nucleus of Bekhterev. "The rapid phase must be released in a rapidly reacting system," which is connected with the primary vestibular nuclei only secondarily or by collaterals. He has "assumed that such a 'secondary' nucleus, which may on the one hand transmit the corticofugal impulses and on the other evoke the rapid phase in nystagmus" would be represented by Deiters' nucleus and by "cell groups in the substantia reticularis." The paper is discussed by Mygind.—E. M. Pilpel (New York City).

2441. Goldstein, K. *A further comparison of the Moro reflex and the startle pattern.* *J. Psychol.*, 1938, 6, 33-42.—A patient who showed an extension-abduction response to strong stimuli in a pattern like the Moro response is used as the basis for the discussion. The Moro response is seen as an expression of the immaturity of the higher centers, an imperfection of the nervous system similar to the abduction-extension phenomenon in frontal lobe and

cerebellar lesions and the pattern in decerebrate rigidity. It disappears with the progressive development of the higher centers. The startle reaction is an expression of maturity of the higher centers and therefore appears in infants when the nervous system has reached a definite grade of maturation.—E. D. Hunt (Brown).

2442. Heyd, E. *Experimentelle Beiträge zum psychogalvanischen Reflex-Phänomen.* (Experimental contributions to the phenomenon of the psychogalvanic reflex.) *Zeulenroda: Sporn*, 1938. Pp. 32.—R. R. Willoughby (Brown).

2443. Iglauder, A., & Altschule, M. D. *Effects of exertion on vital capacity of normal subjects.* *Proc. Soc. exp. Biol., N. Y.*, 1938, 39, 512-514.—Vital capacity of untrained healthy adults was measured before and within 30 seconds after the very rapid ascent and descent of 4 flights of stairs, and found not to be changed significantly in spite of marked dyspnea.—H. Peak (Randolph-Macon).

2444. Johnson, D. M., & Trawick, M. *Influence of rhythmic sensory stimuli upon the heart-rate.* *J. Psychol.*, 1938, 6, 303-310.—An effort to reproduce the report in the literature that the hearts of 9 out of 10 people will beat synchronously with a rhythmic light or sound stimulus while the subjects concentrate on the stimulus failed. Heart beats and stimuli were recorded simultaneously by means of the recording unit of an ink-writing electro-encephalograph. Evidence of acceleration by rhythms 15-30 faster, or deceleration by rhythms 10 slower than normal, was obtained in only one of 10 subjects, and this evidence was doubtful.—J. McV. Hunt (Brown).

2445. Kenyon, A. T. *The effect of testosterone propionate on the genitalia, prostate, secondary sex characteristics, and body weight in eunuchoidism.* *Endocrinology*, 1938, 23, 121-134.—W. J. Brogden (Johns Hopkins).

2446. Mittelshtedt, A. A., & Novakovskaya, E. S. [Changes in metabolism in certain cases of emotional stimulation.] *Arch. biol. Nauk*, 1937, 45, 119-126.—Studies are reported on 2 dogs and 2 men. The body weight,  $O_2$  consumption, urinary volume, total N, and creatinine and creatine excretion were determined before and after emotional disturbances (sound effects for dogs, lectures and examinations for men). Emotional stimulation was followed by loss of weight, increased  $O_2$  consumption, loss of body protein, and appearance of urinary creatine. The role of inhibitory factors in the nervous control of metabolism is discussed.—(Courtesy *J. ment. Sci.*).

2447. Noble, G. K., Kumpf, K. F., & Billings, V. N. *The induction of brooding behavior in the jewel fish.* *Endocrinology*, 1938, 23, 353-359.—Brooding behavior in jewel fish with spawning experience can be produced experimentally by treatment with a number of substances. Most effective, in order, when a large series of fish are tested, are corpus luteum, proluton, and prolactin. Anterior pituitary extract, fresh fish pituitary, thyroxin, desiccated thyroid, and

phenol in 0.1 or 0.5% solutions are effective to a much smaller extent. Sexually mature fish without spawning experience cannot be induced to brood with any of the above substances. Previous brooding experience is not essential, but greatly increases the response following treatment. At the beginning of their brooding cycle fish require less prolactin than those about to spawn; castrates require less than normals; and males have a lower threshold to prolactin than do females.—W. J. Brogden (Johns Hopkins).

2448. Reifenstein, E. C., Jr., & Davidoff, E. The psychological effects of benzedrine sulfate. *Amer. J. Psychol.*, 1939, 52, 56-64.—Benzedrine sulfate stimulates the central nervous system, producing a variety of psychologic reactions which are unpredictable and at time paradoxical. A description of these reactions in 200 normal persons and mentally deranged patients is herein presented, with illustrative cases. The stimulating effect of the drug has been demonstrated clinically in the amelioration of narcoleptic sleep attacks, in the dispelling of coma due to barbiturates and to alcohol, and in the increased performance on psychometric tests. Limited confirmatory data has been obtained in a few animal experiments. The need for further controlled objective psychologic investigation of the action of benzedrine sulfate is indicated.—D. E. Johannsen (Skidmore).

2449. Rife, D. C. Handedness of twins. *Science*, 1939, 89, 178-179.—Out of a total of 82 pairs of identical twins alike in handedness, 23.1% have one or more relatives in their immediate families who are left-handed. Of 20 pairs of identical twins showing reversals in handedness, 55% have one or more left-handed relatives in their immediate families. These data are almost the same as the percentages found for fraternal twins, the figures being 18% and 57.1% respectively. The difference is statistically reliable. It is thus indicated that in both types of twins left-handedness occurs more frequently among the relatives of those pairs showing reversals than among the relatives of those alike in unimanual handedness.—F. A. Mote, Jr. (Brown).

2450. Rudolf, G. de M. The arm reflexes. *J. Neurol. Psychiat.*, 1939, 2, 7-12.—In a series of 466 healthy persons examined once, absence of one or more arm reflexes was found in 3.6% of persons and in 1.23% of reflexes tested. Absence was more common over 20 years than under that age. Of 600 responses grouped into four types, 74.1% gave normal, 5.5% absent, 5.8% diminished, and 13.5% increased responses. Each reflex, individually, gave about 75% of normal responses. A slight tendency was observed for a greater proportion of absent responses to occur early in the day. Seven persons, examined repeatedly, gave normal reflexes 68.2% of the time, confirming the figure of 74.15% found in single examinations. The variations in single examinations in healthy subjects are, therefore, probably of a temporary nature only.—W. J. Brogden (Johns Hopkins).

2451. Russo, S., & Dallenbach, K. M. Age and the effects of rotation. *Amer. J. Psychol.*, 1939, 52, 83-88.—213 S's, between the ages of 5 and 21, were blindfolded and rotated 10 times upon a rotation table, at a standard rate of 1 turn in 2 sec. Response to simple rotation in both directions, past pointing, and the falling reaction were tested. S's reported upon the affective quality of the experience. Although a greater proportion of young than older children find the experience pleasant, there is no uniformity in the affective experience at any age level; the shift from liking to disliking is most marked at the 11-year age level. This shift is not correlated with physiological maturity as measured by height and weight. 86% of the S's past-point; 87% reported the normal falling reaction. Sex differences are insignificant. Compensatory head movements during rotation occur in only 32% of the S's.—D. E. Johannsen (Skidmore).

2452. Schaefer, H., Schölmerich, P., & Haass, P. Der Elektrotonus und die Erregungsgesetze des Muskels. (Electrotonus and the excitation laws of muscle.) *Pflüg. Arch. ges. Physiol.*, 1938, 241, 310-341.—M. A. Rubin (Worcester State Hospital).

2453. Sailles, J. De l'inertie humaine. (Human inertia.) *Rev. gén. Sci. pur. appl.*, 1937, 48, 121-126.—By "inertia" the author signifies the fact that any given state of movement or rest tends to persist in the absence of a modifying force. Mental acts obey the same laws of inertia as do physical; various psychological laws are examined in the light of this concept. The dependence of the operation of psychological force upon speed and such factors as nervous fatigue leads to the hypothesis that mental work is related to a mechanism regulating material movements.—(Courtesy *Année psychol.*).

2454. Seward, G. H. Dialectic in the psychology of motivation. *Psychol. Rev.*, 1939, 46, 46-61.—Modern theories of motivation have evolved from the matrix of classic hedonism. Tolman advanced beyond the "rational" hedonists by tying up alldonic tone with basic biological drives. Thorndike, whose law of "effect" resembles Tolman's principle, has attempted an experimental test of hedonism. Psychoanalysis emphasized the unconscious origin of the desires controlling behavior, and the conflict between id, ego, and the socialized super-ego. Freud stressed the importance of the sexual element, while Adler magnified the role of ego strivings, and Jung generalized the libido to render it synonymous with vital energy. McDougall's purposivism substitutes hormism for hedonism, and makes pleasure and pain secondary to the "instincts" or biological drives, which become organized around specific objectives to form controlling sentiments. Behaviorism abandoned instincts in favor of conditioned reflex patterns whose establishment in animals and children was capable of being objectively studied. But this emphasis on specific external stimuli destroyed the organic unity of behavior and led to such reactions as Tolman's "purposive behaviorism," with his "set of intervening variables—primary and

secondary demands"; and Lewin's "field dynamic" theory, in which motivation becomes an immediate relation between the individual and his environment. Suggestions are offered for the future development of motivational psychology.—A. G. Bills (Cincinnati).

2455. Shay, H., Gershon-Cohen, J., Fels, S. S., Meranze, D. R., & Meranze, T. The thymus. *J. Amer. med. Ass.*, 1939, 112, 290-292.—The complete or nearly complete destruction of the thymus early in the life of the rat results in an arrest of development of the spermatogenic portion of the testes. This physiologic castration is accompanied by the development of a typical castrate pituitary picture. These changes are progressive to approximately 100 days, the time when the thymus in the rat has reached its peak of growth. During this period all males with destruction of the thymus remain sterile. After this period reparative processes set in, so that in 50 to 100 days more the testes have completely regenerated, the pituitary has returned to its normal functional state, and the animals are able to reproduce. Similar destruction of the thymus in females produces no recognizable functional or anatomical changes in the ovaries or the pituitary.—W. J. Brogden (Johns Hopkins).

2456. Strauss, H., Landis, C., & Hunt, W. A. Acoustic motor reactions, especially the cochleopalpebral reflex. *Arch. Otolaryng.*, Chicago, 1938, 28, 941-945.—W. J. Brogden (Johns Hopkins).

2457. Treutler, H. K. Die Eigenreflexe der quergestrichen Muskeln während des Aufstiegs in der Unterdruckkammer. (Tendon reflexes of the striated muscles during rise in the low-pressure chamber.) *Luftraummedizin*, 1938, 2, 367-377.—R. R. Willoughby (Brown).

2458. Tullio, P. I riflessi orientativi nello studio delle attività mentali. (Orientalive reflexes in the study of mental activity.) *Riv. Psicol.*, 1938, 34, 141-223.—All organisms tend to move toward or away from pleasant or harmful objects that affect them. In all of these adjustments, including the visual, auditory, or muscular mechanisms of the body, the role played by the vestibular mechanisms is paramount. Even in higher organisms, the movements that become refined as gestures, speech and written language are natural phenomena developed through the aid of vestibular activity. The author shows the function of the semi-circular canals in all mental activity.—T. M. Abel (New York City).

2459. Viaud, G. Sur le phototropisme des rotifères. Etude du réflexe de pivotement dans l'orientation à la lumière chez *Brachionus pala* Ehrenberg. (On phototropism in rotifers. A study of the pivoting reflex in orientation to light in *Brachionus pala* Ehrenberg.) *C. R. Soc. Biol.*, Paris, 1938, 129, 1174-1176.—Orientation to light in this rotifer brings into play (1) the pivoting reflex, which only accidentally orients the animal in the direction of the light and which is always made on the dorsal side, and (2) other movements which continually

compensate for the pivoting reflex and which are the essential factors in the orientation.—G. Goldman (Sorbonne).

2460. Viaud, G. Orientation par rapport à deux sources de lumière blanche, chez *Brachionus pala* Ehrenberg. (Orientation with respect to two sources of white light in *Brachionus pala* Ehrenberg.) *C. R. Soc. Biol.*, Paris, 1938, 129, 1177-1178.—Orientation in this rotifer shows the geometric characteristics of tropotactile orientation, but it does not possess all the characteristics of the typical tropotactile orientation, in that it does not have tonic but rather motor reflexes as a base.—G. Goldman (Sorbonne).

2461. Viaud, G. Orientation par rapport à deux sources lumineuses de radiations de longueurs d'onde différentes chez *Brachionus pala* Ehrenberg. (Orientation with respect to two light sources of radiation of different wave length in *Brachionus pala* Ehrenberg.) *C. R. Soc. Biol.*, Paris, 1938, 129, 1178-1180.—Sensitivity observed in the brachionid during orientation to light was clearly of the visual type.—G. Goldman (Sorbonne).

2462. Weisz, S. Studies in equilibrium reaction. *J. nerv. ment. Dis.*, 1938, 88, 150-162.—Reactions for the maintenance of equilibrium are essentially compensatory movements with two components, a sufficient readiness and a sufficient support tonus. The simplest way to elicit them experimentally is through tipping the supporting surface. 67 children, ages two months to eleven years, were studied. The first positive results in infants were found at the age of about six months. Clear relationships between the learning of sitting, standing, and walking and the equilibrium reaction may be established. There may exist a relation between the successively developed equilibrium of the child and the successive effect of the regulative influences of the cerebellum upon the static functions.—C. R. Atwell (Boston Psychopathic Hospital).

2463. Zador, —. Les réactions d'équilibre chez l'homme. (Etude physiologique et clinique des réactions d'équilibre sur la table basculante.) (Equilibrium reactions in man; a physiological and clinical study of equilibrium reactions with a tipping apparatus.) Paris: Masson, 1938. Pp. 256. 80 fr.—G. Goldman (Sorbonne).

[See also abstracts 2301, 2305, 2313, 2315, 2330, 2333, 2334, 2337, 2347, 2348, 2352, 2361, 2398, 2404, 2412, 2413, 2481, 2493, 2507, 2520, 2525, 2528, 2597, 2606, 2623, 2679, 2683, 2693, 2757, 2760, 2764.]

#### PSYCHOANALYSIS, DREAMS, HYPNOSIS

2464. Bartlett, F. H. The limitations of Freud. *Sci. & Soc.*, Lond., 1939, 3, 64-105.—The author criticizes Freud from a Marxist point of view. After an introductory section, he considers in turn the concepts of the Oedipus complex, the id, the ego, the super-ego, and the death instinct; in each case he endeavors to show that Freud attributes an undue

amount of influence to innate biological factors and tends to neglect the influence of the particular social matrix of the individual. At a number of points he makes constructive suggestions about the ways in which individual personality development is influenced by the specific family and class structure of our society.—I. L. Child (Yale).

2465. Bergler, E. **Phases of the masculine beating fantasy.** *Psychoanal. Quart.*, 1938, 7, 514-536.—Quotation is made from Freud's study "A Child is Being Beaten," to outline the 3 phases of the feminine beating fantasy and the 2 phases of the masculine beating fantasy. The author then raises the questions of the existence of a preliminary sadistic phase in the masculine beating fantasy and of the possible origin of the masculine beating fantasy in the inverted Oedipus complex. Clinical case material is then cited to clarify these questions, and it is concluded that there is a preliminary sadistic phase of the masculine beating fantasy in which the "aggression of the boy is first of all directed against the breasts of the pre-Oedipal mother, and is only secondarily, under pressure of guilt feelings, turned against himself. In so doing the buttocks of the boy are equated with the breasts of the mother, which among other things represents a narcissistic attempt at restitution." The author feels that the material is in complete agreement with Freud's study.—M. H. Erickson (Eloise Hospital).

2466. Desoille, R. **Exploration de l'affectivité subconsciente par la méthode du rêve éveillé.** (The exploration of the subconscious affectivity by the method of waking subjects from dreams.) Paris: D'Artrey, 1938. Pp. 292.—G. Goldman (Sorbonne).

2467. Fenichel, O. **Ego disturbances and their treatment.** *Int. J. Psycho-Anal.*, 1938, 19, 416-438.—Emphasis is placed upon the importance of the ego in the psychic structure and upon the types and significances of ego disturbances. This is followed by a discussion, illustrated by details of case material from the history of 3 patients, of the technical problem of the treatment of ego disturbances, with particular attention to special ego defenses.—M. H. Erickson (Eloise Hospital).

2468. Fenichel, O. **Problems of psychoanalytic technique.** *Psychoanal. Quart.*, 1938, 7, 421-442.—In the first of the two chapters constituting this instalment, the author surveys the general questions of the place of technique as such in the practice of psychoanalysis and of the importance of a theory of technique, emphasizing the necessity of presenting a critical survey of the literature on the subject. In the second chapter he enters upon a discussion of a theory of psychoanalytic therapy, orienting it about the questions of the means by which the ego is actuated to give up or modify its defenses against instinct, and the explanation in technical and economic terms of the changes occurring after the abandonment or modification of these defenses. He defines the therapeutic task as the reuniting with the conscious ego of the contents which have been withheld from consciousness and the total

personality by countercathexes of the ego, and the abolishing of the effectiveness of the counter-cathexes.—M. H. Erickson (Eloise Hospital).

2469. French, T. M. **Defense and synthesis in the function of the ego.** *Psychoanal. Quart.*, 1938, 7, 537-553.—The author discusses critically and reflectively Anna Freud's "The Ego and the Mechanisms of Defense," emphasizing the points made and directing attention to the various deficiencies in the general understanding of the ego and the defenses it employs.—M. H. Erickson (Eloise Hospital).

2470. Gruber, G. H. **Die Widerstandsanalyse und ihre therapeutischen Ergebnisse.** (Analysis of resistance and its therapeutic results.) *Zbl. Psychother.*, 1939, 11, 9-26.—The change during the past decade from analysis of symptoms to the making conscious of unconscious resistance is part of the general medical tendency to treat the patient as a whole. The nucleus of all resistance is unconscious obsessive repetition of inadequate behavior. In analysis of resistance, intuition is better than the most comprehensive technique. The expected therapeutic results are the making conscious of the primitive self, which has nothing in common with the ego but corresponds to the embryonic id. This concept represents a broader and changed attitude toward the goals of psychotherapy and human existence. This psychotherapy results in widening consciousness at the expense of the unconscious, fluidity and intensification of relationships between id, ego and super-ego, and decrease of tension.—M. E. Morse (Baltimore).

2471. Gutheil, E. A. **The language of the dream.** New York: Macmillan, 1939. Pp. 286. \$3.50.—This book represents an attempt to present a textbook of dream interpretation. After a brief introduction, the writer describes dream elements, the basic mechanisms, the dream symbols, active analytical interpretation, the dream and neurosis, and finally dream interpretation and the psychological schools. Approximately 180 pages of the book are devoted to dream symbols, active analytical interpretations, and dream and neurosis; the writer favors an active use of dream analysis in therapy. He believes the dream represents an intersection of several currents in the personality of the dreamer, and that these can be unravelled from the symbols employed if the interpreter knows something of the circumstances and personality of the dreamer.—J. McV. Hunt (Brown).

2472. Kennedy, J. L. **The visual cues from the backs of the ESP cards.** *J. Psychol.*, 1938, 6, 149-153.—The author discusses means of obtaining visual cues from the backs of the ESP cards, and reports the results obtained from changing methods with two subjects who had consistently made extra-chance scores when tested with the "open matching" or "general BT" methods; when the cards were screened, or the "pack calling" method was used, neither subject produced scores significantly deviating from chance.—E. D. Hunt (Brown).

2473. Leuba, C. Has recent research undermined the evidence for extra-sensory perception? *J. appl. Psychol.*, 1938, 22, 549-553.—Two packs of ESP cards were matched against each other, groups of 10 runs being ascribed to imaginary S's. Those S's who made better than chance scores were selected and given a second run. This selective process was continued for a number of series, at the end of which 7 S's were obtained whose scores were significantly better than chance. With the unusually good S's, series tended to be terminated after good runs. It was concluded that the success in ESP experiments can be explained on the basis of selection of lucky S's and the tendency of experimenters to discontinue runs after good series.—E. Ghiselli (Maryland).

2474. Vogel, V. H. Suggestibility in chronic alcoholics. *Publ. Hlth Rep.*, Wash., 1938, Suppl. No. 144. Pp. ii + 6.—An experiment was conducted to test the hypothesis that alcoholics are unusually suggestible. Experimental subjects were 46 adult white males admitted to the Colorado Psychopathic Hospital because of chronic alcoholism, tested several days after detoxification. Their age range was 21 to 74 years (average 41.5). Control subjects were 100 white adult male employees (average age 35.7 years), who were tested in an earlier study. The test was a modification of the Hull postural sway test. Normal sway was determined by a 1-minute preliminary period, and suggestibility by one 2-minute period of suggestions. Results for the two groups were similar except that 9% of the alcoholics had zero responses, compared to 20% of the normal subjects. The author concludes: "(1) Adult white males who are chronic alcoholics are not more suggestible, as tested in nondrinking intervals by the postural sway test, than nonalcoholics. (2) There appear to be comparatively few chronic alcoholics who are neither positively nor negatively suggestible."—G. R. Thornton (Nebraska).

2475. Warner, L. Is "extra-sensory perception" extra-sensory? *J. Psychol.*, 1939, 7, 71-77.—This paper questions "the necessity and advisability of an assumption now prevalent among many parapsychological investigators: that the so-called 'ESP' is an extra-sensory phenomenon." No one has disproved the hypothesis that body tissue of the recipient in ESP experiments is affected by ESP or telesesthesia. That subjective evidence does not prove this point is not crucial. Lack of dependence of ESP on angle of bodily orientation, and the failure of distance or size of stimuli to affect ESP, do not prove it is extra-sensory. Some energy may be acting, although its nature is unknown at present.—C. N. Cofer (Brown).

2476. Winn, R. B. *Scientific hypnotism*. Boston: Christopher, 1939. Pp. 168. \$1.75.—This book constitutes a general approach to the problems of hypnotism as related to medicine, psychology, and education. It is divided into two parts, the theoretical containing 5 chapters and the practical contain-

ing 4 chapters. Throughout the book emphasis is laid upon the need for a scientific attitude toward all hypnotic phenomena. An index of names is given.—M. H. Erickson (Eloise Hospital).

[See also abstracts 2532, 2581, 2766, 2768.]

#### FUNCTIONAL DISORDERS

2477. Achille-Delmas, G. *A propos du Père Surin et de M.-Th. Noblet*. (Apropos of Père Surin and Marie Thérèse Noblet.) *Etud. carmélit.*, 1938, 23, Part 2, 235-239.—The author discusses the theory that Père Surin was cyclothymic, and believes that possibly these psychopathological disturbances may have helped him attain a high plane of spirituality. As to mythomania in connection with Marie Thérèse, he believes it seems hardly compatible with the records of her saintly behavior.—G. Goldman (Sorbonne).

2478. Anderson, F. N. Some physiologic concepts in mental hygiene. *J. Amer. med. Ass.*, 1938, 111, 2449-2451.—W. J. Brodgen (Johns Hopkins).

2479. Arnold, G. B. A brief review of the first thousand patients eugenically sterilized at the State Colony for Epileptics and Feeble-minded. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 56-63.—Sterilization in the state of Virginia is discussed from the points of view of pure economics, practicality, and heredity. Operations began in 1927. Sterilizations have been performed on 4 feeble-minded persons to every epileptic, and on 3 females to every 2 males. Mental ages averaged about 8 years. Academic attainment was at the level of the third grade. Evidence which was available showed that 50% of the group had bad family histories, mental deficiency and mental disease being prominent among them. Over 800 came from environments which were anything but good. Prior to admission to the state institution over half had run afoul of the law. Of the 482 children of these 1000 patients there is definite knowledge that one out of every three is already definitely feeble-minded or epileptic. Sterilization in Virginia has proven its value, for 632 of the 1000 now live outside the colony in their own homes or in foster homes, and are reasonably well adjusted. Thus they have relieved the state of their support.—M. W. Kuenzel (Children's Home, Cincinnati).

2480. Arthus, H. *Traité de psychologie médicale*. (Treatise on medical psychology.) Paris: Librairie de la Sélection Médicale et Scientifique, 1938. Pp. 262. 35 fr.—After giving an explanation of the principles found in modern dynamic psychology, the author discusses clinical cases as a function of what he calls psychological economy. He discusses "partial" disturbances and gives a comparative study of neuroses and psychoses. In conclusion he suggests a number of new therapeutic possibilities.—G. Goldman (Sorbonne).

2481. Benda, C. E. Studies in the endocrine pathology of mongoloid deficiency. *Proc. Amer.*

*Ass. ment. Def.*, 1938, 43, No. 1, 151-155.—Microscopic studies were made of the thyroids of 20 mongoloids. Two main types of alterations were discovered. These appeared to be involutional changes indicative of hyperstimulation and exhaustion. They pointed to a pituitary disorder, so 14 pituitary glands were then studied. This gland revealed a peculiar and definite pathology. Mongolism is said to appear as "a hypopituitarism of a specific type, in which the absence of deficiency of basophiles seems to be essential." According to this author the next step in investigation will be that of finding in what degree the mental deficiency in mongolism depends upon the pituitary failure described.—*M. W. Kuznel* (Children's Home, Cincinnati).

2482. **Bennet, E. A.** *Individualism in psychotherapy.* *Brit. J. med. Psychol.*, 1938, 17, 293-306.—Both the psychoneurotic patient and the psychotherapist must be considered as individuals. Classification and description have a place, but they are of less value in therapy than the recognition of the individual values of the patient and the physician.—*E. R. Hilgard* (Stanford).

2483. **Bolles, M. M., Rosen, G. P., & Landis, C.** *Psychological performance tests as prognostic agents for the efficacy of insulin therapy in schizophrenia.* *Psychiat. Quart.*, 1938, 12, 733-737.—On the basis of 19 cases of schizophrenia tested before inception of insulin therapy, there seem to be prognostic implications in performance on certain simple psychological tests (Vigotsky, Weigl, BRL sorting).—*C. R. Atwell* (Boston Psychopathic Hospital).

2484. **Borja, A. J.** *Iconografía esquizofrénica.* (Schizophrenic drawing.) *Rev. Neuro-Psiquiat.*, 1938, 1, 551-569.—In some cases of schizophrenia the only way of discovering symptoms is through the interpretation of imaginative drawings of the patient. 22 drawings and the use made of them in diagnosis are given. Bibliography of 8 references.—*R. M. Bellows* (Maryland).

2485. **Brendgen, F.** *Vegetative Stigmatisation und Neurose.* (Vegetative stigmatization and neurosis.) *Zbl. Psychother.*, 1939, 11, 84-112.—Vegetative stigmatization is not a clinically or therapeutically useful unity or a gauge of the entire autonomic system, but an indication of which organs are functionally inferior. Neurosis is a sign of unsuccessful compensation for organ inferiority. Instead of organ neurosis, it is preferable to speak of dyskinesias connected with the total situation of the organism. Their meaning lies not in the organ but in the personality ideal, derived from the child's inferiority feeling. Organ inferiority hinders social adaptation and invites overcompensation in the form of an ego-ideal of fictitious superiority. The organs participate by latent spasmophilia in this tension. With gradual exhaustion, general hypotonia supervenes. The vegetative symptoms become intelligible only by working backward from the aim—the egocentric personality ideal.—*M. E. Morse* (Baltimore).

2486. **Brown, S. C.** *Family case-work and mental health.* *Charity Organis. Quart.*, 1939, 13, No. 1.—*R. R. Willoughby* (Brown).

2487. **Burbury, W. M.** *The selection of cases for psychiatric treatment in guidance clinics.* *Publ. Hlth., Lond.*, 1938, 51, 333-336.—*R. R. Willoughby* (Brown).

2488. **Burrow, T.** *The world as will: a view and a review.* *J. soc. Phil.*, 1939, 4, 162-173.—The author reviews Otto Rank's *Truth and Reality* and *Will Therapy*. "The motivation which Rank conceives of under the term 'will' is a reaction that is restricted to a purely conditioned, politico-social level of man's adaptation. It marks a merely preceptive, esoteric, ideological premise of activation. This private incentive is itself part and parcel of man's pseudo-normal and neurotic basis of behavior. It presumes that the motivation to human conduct rests upon a purely socio-symbolic level of integration." Instead, the psychiatrist must recognize the presence of a bio-physical disorder affecting man as a race. The adoption of a broader bionomic frame of reference will bring a return to the study of directly observable structures.—*W. A. Varvel* (Kansas).

2489. **Chipman, C. E.** *Mental content and intellectual initiative in adult morons.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 100-107.—Measurements of undirected mental activity initiated by verbal stimuli were obtained on 51 high-grade defectives. 10 unrelated sentences served as stimuli. Responses were recorded verbatim and scored on the basis of number of words spoken, number of primary ideas, and other categories. When lack of correlation was found between IQ level and amount, completeness and logic of thought, then subjects were classified according to clinical diagnosis. A table shows the mean scores for the 13 different types of responses in the case of undifferentiated morons, cases of brain damage, and those classifying as psychotic with mental deficiency. In comparison with responses of typical morons "the subject with a definite psychosis uses a greater flow of language, has a keener awareness of possible interpretations of verbal material, and shows a marked tendency toward generalizations, egocentric responses, and elaboration of primary ideas." The catalogue type of response and frequent original interpretations are outstanding characteristics. Cases of brain damage showed an uneven quality of thought. Like psychotics they can be readily stimulated to verbal production, but suggest the mental defective in rarity of illogical associations and absence of catalogue response.—*M. W. Kuznel* (Children's Home, Cincinnati).

2490. **Crichton-Miller, H.** *Resultant and purposive in psychiatry.* *J. ment. Sci.*, 1939, 85, 82-95.—*Resultant* refers to any deviation from the normal which can be regarded as the manifestation of inherited characteristics, or as the reaction of the organism to environmental factors, whether the reaction is somatic or affective. *Purposive* refers to

symptoms that may be regarded as subserving an end, whether of exhibitionism, evasion, defence, protest, or punishment. It is suggested that resultant and purposive symptoms often go together and that emphasis must be placed upon synergic etiology. "No real advance can be made in psychiatry except by those who are sensitive to this constant interaction." Migraine, enuresis, nightmare, and war neuroses are discussed as pertinent examples.—D. G. Ryans (William Woods College).

2491. Crutcher, H. B. **Glimpses of family care of mental patients in Europe.** *Ment. Hlth Observ.*, 1939, 6, 1-12.—The family care of mental patients in Gheel, Belgium, and various sections of Germany is described. The author concludes: "Family care not only offers a financial saving to the State for the care of mental patients, but it offers what is far more important—a medium in which human values can be conserved."—M. Keller (Butler Hospital).

2492. Curran, F. J. **A study of fifty cases of bromide psychosis.** *J. nerv. ment. Dis.*, 1938, 88, 163-192.—The literature of bromide psychosis and bromide intoxication is summarized. A report of fifty cases from Bellevue Psychiatric Hospital is given with a few cases described in detail. Bibliography.—C. R. Atwell (Boston Psychopathic Hospital).

2493. Cuthbert, T. M. **Effect of induced hypercalcaemia on excessive psychomotor activity.** *Lancet*, 1938, 235, 612-613.—In two conditions of nervous hyperexcitability, tetany and epilepsy, depression of nervous activity can be achieved by raising the serum calcium. 19 patients in a mental hospital who showed increased psychomotor activity were subjected to 23 courses of treatment designed to raise the calcium content of the blood and the cerebrospinal fluid. In about 70% of the cases given such treatment, the psychomotor activity diminished, and the reduction sometimes persisted for a long time.—W. J. Brogden (Johns Hopkins).

2494. Dalbiez, R. **Marie-Thérèse Noblet considérée du point de vue psychologique.** (Marie Thérèse Noblet considered from the psychological point of view.) *Etud. carmélit.*, 1938, 23, Part 2, 201-209.—The author reviews the psychological mechanisms which may be considered as the basis of the "case" of Marie Thérèse Noblet: her healing powers, which seemed miraculous, auto-suggestive stigmatization, her visions, which might be classed as hallucinations, and the phenomena of diabolic possession, which the psychologist would probably diagnose as coming from subconscious sources. However, he believes that this analysis of psychopathological mechanisms does not explain all the phenomena observable in her life.—G. Goldman (Sorbonne).

2495. Davidson, G. M. **Concerning hallucinations of smell.** *Psychiat. Quart.*, 1938, 12, 253-270.—The writer found hallucinations of smell present in 4% of a group of 500 non-selected psychotics. The majority of the cases fell in the involutional period of life. The tendency is for smells to be unpleasant.

Hypogonadism was a common underlying factor. Olfactory hallucinations occur in two forms, one as a form of memory, the other as a spontaneous experience.—(Courtesy *J. ment. Sci.*).

2496. De Greef, E. **Succédanés et concomitances psychopathologiques de la "Nuit obscure."** (Psychopathological substitutes and concomitants of the "Dark night.") *Etud. carmélit.*, 1938, 23, Part 2, 152-176.—The author gives an analysis of the case of Père Surin, who exorcized the possessed in Loudun in the first part of the 17th century, a case which De Greef believes illustrates the problem of the concomitance of authentic mystic states and insanity.—G. Goldman (Sorbonne).

2497. Despert, J. L. **Schizophrenia in children.** *Psychiat. Quart.*, 1938, 12, 366-371.—29 children admitted to the New York State Psychiatric Institute between 1930 and 1937 were studied. In 18 cases the onset was before the age of seven. The onset was described variously as acute, insidious, and insidious followed by an acute episode. Rapid deterioration marked one-third of the cases. Acute anxiety and regression to primitive forms of behavior were characteristic. Paranoid tendencies were infrequent and noted only in the oldest children. The mother appeared to be aggressive, over-solicitous, and over-anxious in a majority of the cases. Most of the children under seven years of age were boys. Anomaly of speech development was evident in 12 of the 29 cases.—D. G. Ryans (William Woods College).

2498. Desruelles, M., & Bersot, H. **L'assistance aux aliénés chez les arabes du viii<sup>e</sup> au xii<sup>e</sup> siècle. Contribution à l'histoire de l'assistance aux aliénés.** (Care of the insane among the Arabs from the 8th to the 12th century. A contribution to the history of care of the insane.) *Ann. méd.-psychol.*, 1938, 96, Part 2, 689-709.—When Christian physicians were driven out of Constantinople they carried their knowledge of ancient Greek medicine and science to the Arabs. Mohammed recommended that the insane be confined and treated. In the Koran the insane are considered irresponsible. Only the ignorant and superstitious considered them as possessed. In Egypt idiots and imbeciles were considered as beings whose spirits were in heaven while their material bodies remained among the mortals. While the first hospitals which included insane among their patients were probably in Constantinople, the first Arabian hospital for insane was established in Bagdad in 765. They later spread by way of Egypt through Northern Africa to Spain. The first European asylum was founded in Valencia by the Moslems in 1409. In the ninth century Ishaq-Ibn-Imran wrote a treatise on melancholia. The Arabs not only preserved the knowledge of ancient Greece, but developed and transmitted it centuries later to the Europeans.—M. B. Mitchell (Psychopathic Hospital, State University of Iowa).

2499. Doll, E. A. **Department of research, annual report, 1937-1938.** *Train. Sch. Bull.*, 1938, 35, 149-156.—R. R. Willoughby (Brown).

2500. Doll, E. A., & Longwell, S. G. Social competence of feeble-minded in family care. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 211-216.—A report is made on the type of feeble-minded patient sent out from the Newark State School to live in the community under conditions of family care. While studying this group the authors secured results on the Vineland social maturity scale from over 100 adult feeble-minded patients and 25 foster mothers. The median life age of the patients was 45 years. They had spent an average of 15 years in the institution prior to their placement outside. Their median social age was 8.8 years, and their median Binet mental age 7.2 years. Generally they were imbeciles. Patients were found to be leading well adjusted, happy, and somewhat useful lives under the supervision of foster parents who on the social scale were found to be slightly in advance of the average adult.—M. W. Kuenzel (Children's Home, Cincinnati).

2501. Dorn, H. F. The incidence and future expectancy of mental disease. *Publ. Hlth Rep., Wash.*, 1938, 53, 1991-2004.—Analysis of the number of first admissions to mental hospitals in Massachusetts, New York, and Illinois does not bear out the common belief that there has been an alarming increase in mental disease in recent years due to the stress and strain of a complex urban environment. Much of the increase in admissions is attributed to the increase in proportion of old people in the population. Nevertheless, "mental diseases constitute an important health problem." Unless there is a decrease in admission rates, "from 110,000 to 120,000 of the 2,144,800 infants born during 1936 will eventually be committed to a hospital for mental disease." "Owing to the increasing proportion of the population in the older age groups, an increase in the number of admissions to mental hospitals is to be expected in the future, since rates of mental disease are highest at the older ages." It is estimated that in 1960 the number of first commitments will be nearly twice the present number. The conclusions are based mostly upon data for the years 1919-21 and 1929-31. Nine statistical tables and seven figures are included in the report.—G. R. Thornton (Nebraska).

2502. Dukes, E. The use of play in child psychotherapy. *Hlth & Empire*, 1938, December.—R. R. Willoughby (Brown).

2503. Dworkin, S. Conditioning neurosis in the dog and cat. *Amer. J. Physiol.*, 1938, 123, 57.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2504. Ewerhardt, P. J. Reading difficulties in subnormal children. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 188-193.—Cases of reading disability classify in two categories: (1) those children who are reasonably normal in personality make-up, but who fail to grasp reading immediately and so develop emotional reactions because of this failure, the emotional symptoms being of secondary character; and (2) those who have had extensive histories

of emotional problems during preschool years where a pattern of resistance to the learning process itself, including that of social adjustment as well, developed. In this latter case the emotional symptoms constitute the primary factor and the reading disability is secondary. In treatment, when remedial methods in such cases were directed exclusively to the reading situation, the results proved of questionable value, but when treatment had been concerned primarily with the psychiatric problems of these children then subsequent remedial therapy in reading led to excellent results.—M. W. Kuenzel (Children's Home, Cincinnati).

2505. Ewers, W. *Depressive Gestimmtheit und Daseinshaltung des Menschen*. (Depressive moods and attitudes toward existence in man.) Königsberg: Osteuropa-Verlag, 1938. Pp. 61. RM. 2.80.—P. L. Krieger (Leipzig).

2506. Fretet, J. *Les causes affectives de l'érotomanie, principalement chez l'homme*. (The affective causes of erotomania, principally in the male.) Paris: Thèse de Médecine, 1938. Pp. 138.—The early history of erotomanics reveal states of feeling which have resulted from unhappy social situations. The patient usually shows a protest complex and is more hypochondriacal than other cases exhibiting love morbidities. He often tells lies to justify his conduct, and is a malingerer or is hysterical. Protest cases are often persecutors and are aggressive or violently fanatic, but they may occasionally be inoffensive dreamers. A large number of cases are cited which illustrate the author's interpretations and theoretical conclusions. Extensive bibliography.—G. Goldman (Sorbonne).

2507. Gantt, W. H. Extension of a conflict based upon food to other physiological systems and its reciprocal relations with sexual functions. *Amer. J. Physiol.*, 1938, 123, 73-74.—Abstract.—T. W. Forbes (Yale Bureau for Traffic Research).

2508. Gersch, H. Über die Asozialenabteilung der Thüringischen Landesheilanstalten und die Persönlichkeit der Asylierten. (The divisions for the care of asocial patients in the provincial hospitals of Thuringia, and the personalities of these patients.) *Psychiat.-neurol. Wschr.*, 1938, 40, Nos. 29/30. Pp. 24.—R. R. Willoughby (Brown).

2509. Goldstein, K., & Marmor, J. A case of aphasia with special reference to the problems of repetition and word-finding. *J. Neurol. Psychiat.*, 1938, 1, 329-339.—The receptive and expressive functions of speech of the patient studied were only mildly disturbed. There was a striking impairment, however, in the naming of objects and the capacity for repetition. Added to this there was a striking change in the personality, with loss of the capacity for abstract conception. An attempt is made to explain the clinical picture on the basis of the anatomical findings.—W. J. Brodgen (Johns Hopkins).

2510. Göring, M. H. Die Bedeutung der Neurose in der Sozialversicherung. (The meaning of

neurosis for social insurance.) *Zbl. Psychother.*, 1939, 11, 36-56.—The prognosis determines whether symptomatic treatment or psychotherapy should be undertaken. The accident may be, not the cause, but the first explicit revelation of the neurosis. Nevertheless, many neurotics are pensioned, and hence invalidated, who could be rehabilitated by psychotherapy.—*M. E. Morse* (Baltimore).

2511. **Griffin, J. D. M.** The contribution of child psychiatry to mental hygiene. *Canad. publ. Hlth J.*, 1938, 29, 550-553.—*R. R. Willoughby* (Brown).

2512. **Guerin, J. G. E.** Pathologie de Honoré de Balzac. (The pathology of Honoré de Balzac.) Paris: Thèse de Médecine, 1938. Pp. 54.—Using data from the physicians' documents and from Balzac's letters, Guerin judges that Hodgson's disease affected the writer during the last years of his life. The clinical symptoms, the physical appearance of the writer, and the extraordinary intensity of development of his intellectual faculties all are favorable to this hypothesis. Asystolia was the factor which caused Balzac's death in his 50th year.—*G. Goldman* (Sorbonne).

2513. **Guttman, E., Maclay, W. S., & Stokes, A. B.** Persistent mirror-movements as a heredofamilial disorder. *J. Neurol. Psychiat.*, 1939, 2, 13-24.—A case of persistent symmetrical associate mirror-movements is described in which the associated movements accompany both active and passive movements, and in which the disturbance is familial in occurrence.—*W. J. Brogden* (Johns Hopkins).

2514. **Hamlin, R.** Test pattern of high-grade mentally defective girls. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 161-165.—Pattern scores were obtained by dividing the mental age on five simple non-verbal tests by the Binet mental age. These scores showed marked relationship to the adjustment of high-grade feeble-minded girls as indicated by their parole. Low pattern scores showed relationship to specific disorders suggested by medical and psychiatric diagnoses. The test patterns of subjects with psychotic relatives also were studied.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2515. **Hanna, A. K.** Some observations on extra-mural care of mentally deficient children. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 115-121.—Recent state and federal legislation along lines of caring for mentally defective children is reviewed. There is a definite trend toward community service. This is making for the "early discovery of children while there is still an opportunity for increasing their social efficiency; an effective program of home services that will assist parents in understanding their needs, limitations, and capacities; and educational opportunities within the school system adapted to their requirements."—*M. W. Kuenzel* (Children's Home, Cincinnati).

2516. **Harris, A.** The prognosis of anxiety states. *Brit. med. J.*, 1938, Part 2, 649-654.—Of the cases studied, 31% were well, 49% were suffering from

anxiety states, 7% had developed psychoses, and 13% were dead.—*W. J. Brogden* (Johns Hopkins).

2517. **Hegge, T. G.** Institutional research with high-grade and borderline defectives. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 201-206.—"Institutional studies in mental deficiency should be correlated with institutional functions and intimately related to the problems and objectives of the organization." Since social rehabilitation of high-grade defectives is the aim of the institution "the research program should concentrate on studies of defective development, limitations and potentialities for training and social adjustment, and correlated studies of treatment and training methods." Longitudinal research through the case-study method is essential to group methods, which come about through diagnostic and remedial treatment and training programs. Financial support, need for a separate research department, affiliation with university agencies, and relationship to regional or national associations are other topics discussed.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2518. **Hemphill, R. E.** Some considerations of the physical factor in delusional states. *J. ment. Sci.*, 1939, 85, 119-125.—It is suggested that delusional states are indicative of mental disintegration occurring in individuals of inverted, paranoid type, and that a physical factor may often decide what form the delusions may take. The physical factor is frequently of visceral origin. "Possibly the association of infected organs of any sort, such as sinuses, gall-bladder, or colon, with schizophrenia may not be that of association of toxæmia with schizophrenia, but rather of a visceral disturbance providing the individual with a disproportionate, unbalanced visceral-psychological pattern." Two cases are presented and discussed.—*D. G. Ryans* (William Woods College).

2519. **Henderson, D. K.** The nineteenth Maudsley lecture: a revaluation of psychiatry. *J. ment. Sci.*, 1939, 85, 1-21.—Psychiatry is defined as "that branch of medicine which deals with those individuals who, from a combination of circumstances, constitutional and acquired, are unable to adapt themselves satisfactorily to their particular situation in life because of certain signs and symptoms, certain mal-adjustments we call nervous or mental illness, which may or may not require treatment in the home, the school, the college, the factory, the clinic, nursing home, or mental hospital." It is held that psychiatry may be thought of as on an equal footing with medicine in its medical and surgical aspects. Its object is living man. "Psychiatry need no longer be considered a purely formal science, but a branch of medicine which concerns itself not merely with the health of the individual, physically and mentally, but also with the welfare of society."—*D. G. Ryans* (William Woods College).

2520. **Himmelsbach, C. K., & Mertes, O. T.** Basal metabolism tests on disturbed patients. *Publ. Hlth Rep.*, Wash., 1939, 54, 63-66.—Upset patients complain of the tedium of lying on the back and of

annoyance from the mouthpiece when taking a basal metabolism test. Seeking to improve the validity of the tests, the authors compared basal metabolism tests obtained on patients in the prone and supine positions, and with a mask and with the mouthpiece. The results indicated that: "Neither the prone position nor the face mask is of value in facilitating basal metabolism testing of nervously and physically disturbed patients. Both methods yield higher results than the standard method."—*G. R. Thornton* (Nebraska).

2521. **Hohman, L. B.** The abortion of recurrent depressive psychoses. *J. nerv. ment. Dis.*, 1938, 88, 273-280.—Attacks may be prevented if the psychiatrist has an opportunity to know patients intimately for a long period after recovery from an acute attack. The time for psychotherapy may be following illness rather than during it. Three cases are cited.—*C. R. Atwell* (Boston Psychopathic Hospital).

2522. **Houlouse, J.** Contribution of mental hygiene to education on the elementary level. *J. Amer. med. Ass.*, 1938, 111, 2447-2449.—*W. J. Brodgen* (Johns Hopkins).

2523. **Humphreys, E. J.** Present day research trends in the field of human deficiency. *J. nerv. ment. Dis.*, 1938, 88, 474-490.—*C. R. Atwell* (Boston Psychopathic Hospital).

2524. **Humphreys, E. J.** The field of psychiatry in relation to the work of the State School. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 80-89.—"Psychiatry in the State School (for the feeble-minded), by reason of the nature of its interests in social synergy, is interested in (1) developing a clinical psychiatric service to include the total institution—staff members and patients; (2) developing a research program that will afford a common basis of operation for physiological, psychological and sociological agencies in the prevention, care and treatment of human defectives; (3) developing a practical, joint state and community program of care, treatment, and supervision of all defectives and borderline types; (4) contributing toward the development of higher levels of social integration among all classes of society through the study of the meaning of developmental deficiency—biologically or sociologically considered."—*M. W. Kuznel* (Children's Home, Cincinnati).

2525. **Hunt, W. A., Strauss, H., & Landis, C.** The startle pattern in epileptic patients. *Psychiat. Quart.*, 1938, 12, 375 ff.—The writers carried out experiments on two groups of 50 and 78 epileptics, using a .38 or a .22 calibre cartridge. About 20% showed either absent or incomplete eyelid reflexes following the startle stimulus. There was also present deterioration of the lid reflexes to a puff of air in the ear, the pricking of the nostril, and the approach of an object to the eye. These disorders showed no relation to changes in the alpha rhythm of the electroencephalogram. At least half of the epileptics failed to show any of the secondary reac-

tions commonly associated with the startle response—fear, flight, curiosity, attention, laughter, annoyance, etc.—(Courtesy *J. ment. Sci.*).

2526. **Jacobsen, W.** Sammlung von Beschreibensweisen zykllothymer und schizothymer Verhaltenssymptome und Eigenschaften. (Collection of descriptions of cyclothymic and schizothymic behavior symptoms and peculiarities.) *Z. Psychol.*, 1938, 142, 291-312.—From an analysis of cases found in the literature and obtained in private practice, the author presents in detail, in parallel columns, the psychological (not somatic) characteristics of the schizothymic and cyclothymic types with reference to their emotional stability, motor activity, intellectual and attentional behavior, and relation to the objective world in initiative and social awareness.—*G. F. J. Lehner* (Vermont).

2527. **Jager, W. A. d. H.** On the central or peripherous action of bulbocapnine. *Arch. néerl. Physiol.*, 1938, 23, 254-255.—Experiments on frogs were performed to test recent claims that experimentally induced catatonia by bulbocapnine results from direct action of this alkaloid on muscular tissue, rather than through its influence on the central nervous system. Jager's data support the hypothesis of a purely central nervous effect.—*C. P. Stone* (Stanford).

2528. **Johnson, H. K.** The interpersonal contention in schizophrenic thought. *Psychiat. Quart.*, 1938, 12, 583-593.—That schizophrenic thought is interpersonalized to an extremely high degree is one of the striking peculiarities of the disease. Schizophrenic mental content typically shows an awareness of other people, or of a dramatic relationship towards people.—*C. R. Atwell* (Boston Psychopathic Hospital).

2529. **Kallmann, F. J.** Heredity, reproduction and eugenic procedure in the field of schizophrenia. *Eugen. News*, 1938, 23, 105-113.—The schizophrenic disease complex is definitely hereditary and extremely dysgenic, but thus far completely inaccessible to reliable means of clinical prophylaxis. Marriage and fertility quotas are much lower in the group of hebephrenic and catatonic patients than in the group of paranoid and simple cases, due probably to "the activity of general constitutional and physiological influences which seem to govern the differences in onset and development of the disease." A survey of about 1100 schizophrenic patients showed that more than two thirds of the children, nearly half of the grandchildren, about one third of the siblings, and close to a quarter of the half-brothers and half-sisters, great-grandchildren, and nephews and nieces must be classified as eugenically undesirable—schizoid types, secondary cases of schizophrenia, strongly marked forms of psychopathy, and feeble-mindedness. The correspondence between expectation of schizophrenia and low resistance to tuberculosis is so great that the author considers it evidence of genuine gene-coupling. The propagation of schizophrenics after the onset of the disease must be prevented, but eugenic success cannot be secured

without systematic preventive measures among the tainted children and siblings of schizophrenics.—*M. V. Louden* (Pittsburgh).

2530. **Kelman, H., & Field, H.** **Psychosomatic relationships in pruriginous lesions.** *J. nerv. ment. Dis.*, 1938, **88**, 627-643.—Citation of a case with discussion of the literature on the psychogenic aspects of skin disease. It is emphasized that a skin disease or in fact any disease cannot be considered apart from the patient who suffers with it.—*C. R. Atwell* (Boston Psychopathic Hospital).

2531. **Kimber, W. J. T.** **Social values in mental hospital practice.** *J. ment. Sci.*, 1939, **85**, 29-44.—The mental hospital has two sets of responsibilities, one with respect to the patient, whose social value in the community has been lowered by mental disorder, and the other with respect to the community, in which the prevalence of mental disorder is an important social problem. Accordingly, there have been two main lines of development in the hospital: (1) occupational therapy, and (2) establishment of propaganda and teaching centers for both medical and lay workers. Child guidance, occupational therapy and social education of patients, and psychiatric social work in the community are discussed.—*D. G. Ryans* (William Woods College).

2532. **Knight, R. P.** **The psychoanalytic treatment in a sanatorium of chronic addiction to alcohol.** *J. Amer. med. Ass.*, 1938, **111**, 1443-1448.—*W. J. Brodgen* (Johns Hopkins).

2533. **Kuntz, L. F.** **Elements of abnormal psychology.** Notre Dame, Ind.: Notre Dame Bookstore, 1939. Pp. 318. Paper \$3.00, cloth \$3.50.—A text for advanced college students, with emphasis on psychiatric treatment. After chapters on personality and normality, the author devotes six chapters to various borderline conditions, three chapters to functional psychoses, eight chapters to organic causes of abnormal behavior, and the remaining chapters to epilepsy and feeble-mindedness. A psychiatric glossary is appended.—*W. L. Wilkins* (Springfield Junior College).

2534. **Lashley, K. S.** **Factors limiting recovery after central nervous lesions.** *J. nerv. ment. Dis.*, 1938, **88**, 733-755.—"The picture of restitution of functions which we can draw today as the outcome of our experiments is far less optimistic than it would have been ten or fifteen years ago. It is true that such specific activities as new combinations of movement, maze habits, visual memories, vocabulary, can be restored by persistent training with strong motivation after almost any degree of central nervous destruction. But the fundamental and important effects of cerebral injury are not the simple sensorimotor disorders or the amnesias. They are the defects in the capacity for organization, the lowered level of abstraction, the slowing of learning and reduced retentiveness, the loss of interest and spontaneous motivation, and there is little evidence that these improve with time or training." Bibliography.—*C. R. Atwell* (Boston Psychopathic Hospital).

2535. **Latapie, A., & Leclerc, J.** **Troubles du langage parlé et du langage écrit chez trois démentes précoces à forme paranoïde.** (Disturbances of spoken and written language in three paranoid dementia praecox patients.) *Ann. méd.-psychol.*, 1938, **96**, Part 2, 710-719.—Although the written language of schizophrenics is less frequently disturbed than the spoken language, sometimes the reverse is true and either alone may show disturbances. Rambling speech may precede rambling writing, but when the writing does deteriorate it may become even more incoherent than the speech, so that in comparing disturbances in different patients the state and evolution of the disease must be considered. Since some patients have always been able to express themselves better in one way than the other, the natural and acquired aptitudes must also be appraised.—*M. B. Mitchell* (Psychopathic Hospital, State University of Iowa).

2536. **Lewis, A.** **States of depression: their clinical and aetiological differentiation.** *Brit. med. J.*, 1938, Part 2, 875-878.—*W. J. Brodgen* (Johns Hopkins).

2537. **Lhermitte, J.** **Marie-Thérèse Noblet considérée du point de vue neurologique.** (Marie Thérèse Noblet considered from the neurological point of view.) *Etud. carmélit.*, 1938, **23**, Part 2, 201-209.—The author, who does not attempt to solve all phases of the life of this missionary to Papua, advances the theory that her crises were accidental symptoms of a psychoneurotic character having hysterical attributes.—*G. Goldman* (Sorbonne).

2538. **Loehner, C. A.** **The therapeutic effect of adrenal cortex extract on the psychotic patient.** *Endocrinology*, 1938, **23**, 507-520.—Treatment by adrenal cortex extract produced a complete remission of symptoms in one patient, brought a marked improvement in two cases, some improvement in six cases, and had no effect on one patient.—*W. J. Brodgen* (Johns Hopkins).

2539. **Maclay, W. S., Guttman, E., & Mayer-Gross, W.** **Spontaneous drawings as an approach to some problems of psychopathology.** *Proc. R. Soc. Med.*, 1938, **31**, 1337-1350.—*W. J. Brodgen* (Johns Hopkins).

2540. **Malzberg, B.** **Is birth order related to the incidence of mental disease?** *Amer. J. phys. Anthropol.*, 1938, **24**, 91-104.—No relationship was found between birth order and mental disease in the groups studied.—*W. J. Brodgen* (Johns Hopkins).

2541. **Masserman, J. H., & Balken, E. R.** **The clinical application of phantasy studies.** *J. Psychol.*, 1938, **6**, 81-88.—The Morgan-Murray phantasy test was given to 50 patients with various forms of psychoneuroses and early psychoses. The phantasies produced yielded interpretations characteristic of the patients' clinical types; e.g., the phantasies of depressed patients are retarded, halting and fragmentary, deeply colored with ideas of guilt and self-depreciation. The patients give indications in their phantasies not only of what their intrapsychic

conflicts may be, but also of the ways (frank wish fulfillment, further repression, or sublimation) in which, unconsciously, they would like their conflicts to be solved.—E. D. Hunt (Brown).

2542. May, R. *The art of counseling; how to gain and give mental health.* Nashville: Cokesbury Press, 1939. Pp. 247. \$2.00.—R. R. Willoughby (Brown).

2543. Mayer-Gross, W. *The early diagnosis of schizophrenia.* *Brit. med. J.*, 1938, Part 2, 936-941.—W. J. Brodgen (Johns Hopkins).

2544. McIlwaine, W. B. *The correlation between the pediatrician, psychiatrist and psychologist.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 217-221.—The author makes a plea, based on his experience with cases presenting mental and emotional problems, for greater co-operation between physicians and such specialists as psychiatrists and psychologists.—M. W. Kuenzel (Children's Home, Cincinnati).

2545. Milici, P., & Salzen, C. v. *Situational schizophrenia.* *Psychiat. Quart.*, 1938, 12, 650-668.—Report of a case.—C. R. Atwell (Boston Psychopathic Hospital).

2546. Morphy, A. G. *A review of recent literature on neuroses and psychoneuroses.* *Canad. med. Ass. J.*, 1938, 39, 282-286.—R. R. Willoughby (Brown).

2547. Muncie, W. *Concrete model and abstract copy: a psychobiological interpretation of the "closing-in" symptom of Mayer-Gross.* *J. nerv. ment. Dis.*, 1938, 88, 1-11.—The "closing-in" symptom in cases of constructive apraxia was regarded by Mayer-Gross as being a graphic demonstration of the difficulty in space activity and as denoting a fear of empty space, and so expressing some deep biological protective need. Three cases are cited, and from this material the closing-in system may be generalized as an overt demonstration of disturbance in the ability to make an abstract copy from a concrete model. This disturbance has special presenting characteristics depending on the nature of the disturbing factor and the personality function so damaged.—C. R. Atwell (Boston Psychopathic Hospital).

2548. Myers, C. R. *An application of the control group method to the problem of the etiology of mongolism.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 142-150.—Histories were compared in the case of 215 mongolians and their 215 controls, which latter were non-mongolian mental defectives of similar age and intelligence and were institutional or clinic cases. One third of the mongolians were institutionalized. Average ages were 15 and average IQ's 29. Nearly one half of the fathers of mongolians as compared with 17% of the fathers of controls were of high occupational status. The difference between the average ages of mothers was found to be 18 times its probable error. Other factors which were considered in the study had to do with the diminished productivity of the mother, the long

interval preceding birth of child, frequency of premature birth, excessive developmental retardation, frequency of thyroid disorder and acute nervous excitement in the mother during pregnancy, and geographical distribution of births in relation to thyroid rate in these areas. The author believes that "although maternal hypothyroidism is not, by itself, the adequate cause, it may well be one of the more prominent symptoms of that particular but complex endocrine disturbance which is responsible for the occurrence of mongolism."—M. W. Kuenzel (Children's Home, Cincinnati).

2549. Oltman, J. E., & Friedman, S. *Acute heterosexual inadequacy. I. In the male.* *Psychiat. Quart.*, 1938, 12, 669-678.—"Acute heterosexual inadequacy and the homosexual panic are branches of the same tree and spring from roots common to the biologically inadequate male. In the individual succumbing to acute homosexual panic, however, perverse sexual cravings are more active and closer to consciousness; while in the other, the desire to reach a heterosexual level may be stronger but comes to ruin when the opportunity is offered. The clinical symptoms, consisting of panic and its concomitant features, may be very similar in both cases. Nevertheless, the typical antecedent history, which may include engagement and approaching marriage, and the characteristic wish-fulfilling type of delusional material readily distinguish the acute heterosexual panic."—C. R. Atwell (Boston Psychopathic Hospital).

2550. Orenstein, L. L., & Schilder, P. *Psychological considerations of the insulin treatment in schizophrenia.* *J. nerv. ment. Dis.*, 1938, 88, 397-413; 644-660.—Special attention was given to the study of Gestalt functions during and immediately after termination of the hypoglycemic state. Difficulty in perception and naming objects is identical in the stupor and after awakening. There is a general retardation in reactions. Perseveration is outstanding. Visuo-motor Gestalt patterns are of primitive type. After awakening, the patient shows a friendly attitude towards his surroundings. During states of excitement otherwise hidden sexual material, anal eroticism, or homosexual transference may appear. The state of manneristic restlessness is associated with deep disturbances in perceptive functions. Time sense disturbances occur. States of empty, almost playful excitement, not schizophrenic in type, occur as due merely to the hypoglycemic state. Recovered cases show objective insight but no understanding of psychodynamics. Complete objective insight is lacking in partially improved cases.—C. R. Atwell (Boston Psychopathic Hospital).

2551. Orth, E. *Zur Frage der therapeutischen Beeinflussbarkeit paranoischer Reaktionen durch Milieuwechsel.* (The problem of the therapeutic modifiability of paranoid reactions by changes in the environment.) Charlottenburg: K. u. R. Hoffmann, 1938. Pp. 67.—R. R. Willoughby (Brown).

2552. Pearson, G. B. *The psychoses with mental deficiency as viewed in a mental hospital: clinical*

**syndromes.** *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 166-172.—The term "psychosis with mental deficiency" needs clarification, for "it covers a multitude of situations that frequently bear no resemblance to each other and fails to explain the dynamisms and the disorder of the personality." Different mechanisms and different levels are involved. In idiots the reaction can be characterized as organic, for the disorder appears to be a total disability on a physiological level. As the moron level is approached more personal problems predominate. Intelligence does not appear to be necessary for the production of a particular mental state, for careful examination of the records of 150 psychotic mentally defective women showed the same mechanism at work in the imbecile as in the highly intelligent.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2553. **Péres, H.** *La psiquiatría y la asistencia de alienados en el Brasil.* (Psychiatry and care of the insane in Brazil.) *Rev. Neuro-Psiquiat.*, 1938, 1, 516-532.—The origin of psychiatry as a healing art and its development in Brazil are discussed. There are in Brazil 10 faculties of medicine which include training in clinical psychiatry, one of which is Facultad Nacional de Medicina de la Universidad del Brasil, directed by Henrique Roxo. There are also 44 public and 23 private establishments for psychiatric service, and a large number of mental hygiene and social service clinics. Bibliography.—*R. M. Bellows* (Maryland).

2554. **Piotrowski, Z.** *The prognostic possibilities of the Rorschach method in insulin treatment.* *Psychiat. Quart.*, 1938, 12, 679-689.—The Rorschach technique permits us to arrive at valid conclusions regarding the patient's personality structure in a much shorter time than is possible through clinical observation. It differentiates between patients with symptoms of agitation or depression. It differentiates between two types of intellectual confusion which indicate opposite prognoses and which are frequently found on schizophrenic records. It is essentially independent of environmental influences. Prognostic principles based on observations made on insulin-treated patients may be assumed to be applicable to schizophrenics in general.—*C. R. Atwell* (Boston Psychopathic Hospital).

2555. **Pollack, B.** *A study of the problem of suicide.* *Psychiat. Quart.*, 1938, 12, 306-330.—Among the patients in a state hospital 17 successful and 34 unsuccessful suicide cases were studied with respect to clinical symptoms. Some defect of development and instability of mood was found in most cases. Difficulty in sexual adjustment was prevalent, unresolved Oedipus and homosexual situations being common findings. Delusions of grandeur were numerous. More male patients than female attempted suicide, and more of Roman Catholic than of other religious faith. Most of the unsuccessful attempts occurred among women, and were not repeated.—*D. G. Ryans* (William Woods College).

2556. **Pollock, H. M.** *A visit to a French family-care colony.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 40-46.—This French colony for the care of mental defectives and psychotics, which has been in operation for 43 years, is located in the ancient town of Dun, approximately 150 miles from Paris. When visited during December, 1935, 679 patients were located in families in Dun, 89 were in the colony center, 550 lived in nearby villages, and 5 were on leave. Description is made of personnel, type of patients, supervision, health, distribution of patients within families, selection of guardians, selection of patients for family care, occupations and amusements, and cost of such care. Mention is made, too, of the different types of family care now in use in Belgium, Germany, Scotland, and Switzerland.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2557. **Reeves, H. T.** *The later years of a noted mental defective.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 194-200.—This is a detailed follow-up of Deborah Kallikak of the famed "Kallikak family" published by H. H. Goddard in 1912. Deborah, who is now 49 years old, has been a resident of the Vineland State School since she was 17. She is in excellent physical condition, is good-looking, energetic, capable, industrious, well trained, and respectful. But her chance of even mediocre success outside an institution would be poor, due to the fact that "her emotions are too easily influenced and her egotism cannot be influenced at all." She glories in the fact that she is famous. At one time she was tried in a colony where girls are sent into domestic service. But after the second instance of immorality she was returned to the institution, where for the past eleven busy and contented years she has been wardrobe mistress in the costume room. In 1936 Deborah's Binet mental age was 10 years and 4 months, and her present social age according to the Vineland social maturity scale is a scant 11 years.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2558. **Schmid, G.** *Die Wachtraumbilder.* (Hallucinatory images.) *Z. Psychol.*, 1938, 142, 1-66.—The author reports several cases of hallucinations, particularly in children, which occurred only when the individual was in a specific locality. In some cases the fear induced by the hallucination was removed by suggesting other hallucinations to check those already present. The characteristics of these hallucinations are related in detail to the intellectual and emotional experiences of the individuals.—*G. F. J. Lehner* (Vermont).

2559. **Schneider, D. E.** *The clinical syndromes of echolalia, echopraxia, grasping, and sucking: their significance in the disorganization of the personality.* *J. nerv. ment. Dis.*, 1938, 88, 18-35; 200-213.—"The clinical syndromes of echolalia, echopraxia, grasping and sucking (with various types of abnormal mouth movements: mouth opening, snapping, biting) are described in various pathologic neuropsychiatric conditions. The pertinent clinical and experimental literature is briefly reviewed. The syndromes are

considered as appearing in two main types of neurophysiologic disturbances: (a) in conditions due primarily to dysfunction of the processes of brain integration, and (b) in disorders primarily due to interruption of pathways such as are produced in vascular disease." Under (a) changes of personality occur which may go on to visible organic degenerative disease or which may rest at the psychotic level. The syndrome is present usually without pyramidal tract signs, although language may be deteriorated to jargon with neologisms in the degenerative group. In degenerative polyglots, the patient is echolalic to the last learned language while not understanding the earlier learned tongues. Under (b) there are usually associated pyramidal tract signs, aphasia and occasionally apraxia. The essential lesion is considered as disruption of parts of the premotor area, probably associated with disease of the auditory cortex. The occurrence of the syndrome in post-convulsive states may make it indicative of a low rate of brain oxygen consumption. In these conditions it is transitory. The relation of the syndrome to the normal development of the child is indicated and the psychoanalytic implications are briefly discussed.—C. R. Atwell (Boston Psychopathic Hospital).

2560. Schultz, J. H. *Über kleine Psychotherapie in der allgemeinen Praxis und Kurzverfahren in der Psychotherapie.* (Minor psychotherapy in general practice and short procedures in psychotherapy.) *Zbl. Psychother.*, 1939, 11, 69-84.—Minor psychotherapy in general practice includes rational conscious treatment, which is closely allied to teaching and in its highest form is systematized discipline; simple procedures of suggestion; and imparting the principles of depth psychology. The "sense" of psychotherapy is development of the entire personality, but its aim may be inevitably limited. Short procedures may be used both as independent limited measures to cure specific symptoms, or as auxiliary methods when depth therapy would be really indicated but is impossible either because of circumstances or lack of existential values in the patient's personality.—M. E. Morse (Baltimore).

2561. Shakow, D. *The functions of the psychologist in the state hospital.* *J. consult. Psychol.*, 1939, 3, 20-23.—A discussion of the possible contributions of the psychologist with respect to diagnosis, teaching and research. Research activities are considered under the headings of diagnosis, psychotherapy, theory, and administration.—P. S. de Q. Cabot (Simmons).

2562. Sheldon, C. P., & Ziegler, L. H. *Marriage among mental defectives.* *J. Amer. med. Ass.*, 1938, 111, 1982-1986.—W. J. Brodgen (Johns Hopkins).

2563. Sherman, M. A. *Mental hygiene aspects of the insulin treatment of schizophrenia.* *Ment. Hlth Observ.*, 1939, 6, 19-22.—The importance of mental hygiene in assisting in the readjustment of schizophrenic patients who have been returned to the

community after insulin treatment is stressed.—M. Keller (Butler Hospital).

2564. Starks, H. A. *Subjective experiences in patients incident to insulin and metrazol therapy.* *Psychiat. Quart.*, 1938, 12, 699-709.—C. R. Atwell (Boston Psychopathic Hospital).

2565. Stern, A. *Borderline group of neuroses.* *Psychoanal. Quart.*, 1938, 7, 467-489.—An analysis is made from both the historical and the transference viewpoints of the problem represented by the borderline type of patient. The author lists and discusses as the outstanding reaction formations or character traits "narcissism; psychic bleeding; inordinate hypersensitivity; psychic and body rigidity—the rigid personality"; negative therapeutic reactions; what look like constitutionally rooted feelings of inferiority, deeply imbedded in the personality of the patient; masochism; what can be described as a state of deep organic insecurity or anxiety; the use of projection mechanisms; difficulties in reality testing, particularly in personal relationships." He then discusses the difficulties of establishing a natural transference relationship, the probability of negative therapeutic reactions, the patient's fear of growing up, the tendency to maintain a state of withdrawal from the analyst, and the absence or flatness of affect in the transference situation. He concludes that the difficulty in handling the patient derives from the fact that the greater part of the functioning ego is involved in the illness itself.—M. H. Erickson (Eloise Hospital).

2566. Stiasny, H., & Generales, K. D. J., Jr. *Erbkrankheit und Fertilität.* (Hereditary illness and fertility.) Stuttgart: Enke, 1937. Pp. 175. RM. 29.—R. R. Willoughby (Brown).

2567. Storrs, H. C. *Presidential address.* *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 34-39.—Progress is constant along lines of treatment, care and training of mental defectives. Equal progress has not been made along lines of etiology. Since the future of this democracy depends directly on the intelligence of coming generations, the president of this association suggests that its members strive toward the establishment of research centers where all possible causes of mental deficiency could receive intensive study.—M. W. Kuenzel (Children's Home, Cincinnati).

2568. Straith, C. L., & DeKleine, E. H. *Plastic surgery in children: the medical and psychologic aspects of deformity.* *J. Amer. med. Ass.*, 1938, 111, 2364-2370.—W. J. Brodgen (Johns Hopkins).

2569. Ström-Olsen, R. *Hippuric acid synthesis in schizophrenia.* *Lancet*, 1938, 235, 995-996.—Tests of hippuric acid secretion, expressed as benzoic acid, on 28 catatonic patients, do not support the hypothesis of Quastel and Wales that a metabolic disturbance in the liver, affecting benzoic acid detoxication, may be a characteristic of the catatonic patient.—W. J. Brodgen (Johns Hopkins).

2570. Tiebout, H. M. Mental hygiene problems of the college student. *Prev. Med.*, 1938, 8, 188-197.—R. R. Willoughby (Brown).

2571. Truesdell, L. E. Mental defectives and epileptics in institutions, 1936. Washington: U.S. Bureau of Census, 1938. Pp. iv + 40. \$0.10.—"The statistics here presented are chiefly valuable for showing what provision has been made in the several States for the treatment of mental defectives and epileptics in special institutions; the types of mentally defective and epileptic persons being cared for; the relative importance of the different types; the sex and age of the patients; their condition on discharge; the cause of death for those who died during the year; and data concerning the administrative and financial operation of the institutions."—G. R. Thornton (Nebraska).

2572. [Various.] Proc. Conf. State Child-Welfare Services. *Child. Bur. Matern. Child-Welf. Bull.*, 1938, No. 3. Pp. vii + 155.—On pages 72-94 is reported a session on "Mental-hygiene problems and services in rural communities." H. B. Mettel discusses "Method of providing psychiatric services." G. H. Preston discusses "Content of a mental-hygiene program." R. Patterson discusses "Contribution of a social worker to a mental-hygiene program."—G. R. Thornton (Nebraska).

2573. Walter, W. G., Griffiths, G. M., & Nevin, S. The electro-encephalogram in a case of pathological sleep due to hypothalamic tumor. *Brit. med. J.*, 1938, Part 2, 107-109.—W. J. Brogden (Johns Hopkins).

2574. Washburne, A. C. Feelings of unreality and displacement. A preliminary study. *J. nerv. ment. Dis.*, 1939, 89, 37-43.—Four cases from a group of ten are cited indicating the importance of a failure in the mechanism of displacement. The primary love object was conceived of as lost or otherwise denied. The substitute love objects failed to furnish the slightest relief. The closure of all objective outlets threw the problem back upon the patient who, unable to accept it, was left suspended, neither advance nor retreat being possible. It does not appear unreasonable to assume that under these circumstances the environmental periphery becomes blurred and indistinct, the outer world unreal and the individual uncertain of her own identity.—C. R. Atwell (Boston Psychopathic Hospital).

2575. Wegscheider, K. Psychotherapie bei Kasenpatienten. (Psychotherapy for patients of mutual benefit societies.) *Zbl. Psychother.*, 1939, 11, 56-69.—Under these conditions psychotherapy must be limited to the brief methods. The central method is autogenous training, supplemented when advisable by suggestion, hypnosis, psychocatharsis, and psychagogic. Group therapy and writing of biographies are helpful after patients have been treated individually, and the fractional method allows inclusion of severe neuroses.—M. E. Morse (Baltimore).

2576. Weygandt, W. Talentierte Schwachsinnige und ihre erbgesetzliche Bedeutung. (Talented

hypophrenics and their significance from the viewpoint of the heredity laws.) *Münch. med. Wschr.*, 1938, 85, 12-16; 61-64.—P. L. Krieger (Leipzig).

2577. Whitney, E. A. Historical review of medicine and mental deficiency. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 64-71.—The review begins with mention of a record dealing with the care of subnormals written in 1552 B.C. Contributions of outstanding persons in this field of work between that time and the present then are cited. At the beginning of the twentieth century most countries had schools for mental subnormals. A review is made of the movement in the United States. This is followed by a discussion of the medical progress which has contributed to the understanding of mental deficiency.—M. W. Kuenzel (Children's Home, Cincinnati).

2578. Whitten, B. O. Psychotic manifestations of mental defectives. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 72-79.—This is a preliminary report about research with patients in an institution for the feeble-minded who are both psychotic and mentally deficient. Whether the two conditions are related or exist independently is yet unknown. Present interest centers in correctness of diagnosis and in discovering the most successful plan of care, treatment and training for such subjects.—M. W. Kuenzel (Children's Home, Cincinnati).

2579. Wilcox, C. J. The work with retarded children in the state of Virginia. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 128-136.—About 67% of the children coming under the care of the Virginia Department of Welfare are found to be feeble-minded. The state has but one institution for care of the white feeble-minded. Six years ago an appropriation was made whereby foster-home care could be given selected cases. Experience has taught that no one method of care is successful for all cases.—M. W. Kuenzel (Children's Home, Cincinnati).

2580. Wilhite, F. V. A program for the social control of the mentally deficient. *Ment. Hlth Observ.*, 1939, 6, 13-18.—A description of the program which has been followed for the past five years for the social control of all the feeble-minded in the State of South Dakota.—M. Keller (Butler Hospital).

2581. Wittels, F. The phenomenon of transference in a case of phobia (anxiety hysteria). *J. nerv. ment. Dis.*, 1938, 88, 12-17.—C. R. Atwell (Boston Psychopathic Hospital).

2582. Wladkowsky, E. A preliminary study of mental growth after the age of fourteen years in an institution for mental defectives. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 181-187.—In general, over 200 mental defectives showed mental growth. Before the age of 14 years they developed more rapidly than after the age of 14, and after 16 years of age they developed more slowly than this. Many individual differences were found among older defectives. This study also checked the conclusion that in the case of institutionalized feeble-minded

there is a tendency for the IQ to decrease with age. This was found to hold true for those examined prior to 16 years of age, but after 16 there was a general tendency for the IQ to increase.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2583. Woolley, L. F. **Studies in obsessive ruminative tension states. VI. Treatment.** *Psychiat. Quart.*, 1938, 12, 772-791.—The most important factors in therapy appear to be the attitude of helpful noncensorious interest on the part of the physician and the supplying of the patient with the possibility of a solution of his problems in such a way that he can still save face. One cannot appropriately talk of the superiority of one therapy to another. The aspiring psychiatrist should be equipped with all the available therapeutic resources and trained in using them. He should be familiar with his own special proficiencies and limitations through the experience of actual trial and observation of results. He should be adaptable and willing to modify his procedure as the occasion demands.—*C. R. Atwell* (Boston Psychopathic Hospital).

2584. Yepsen, L. N. **Institution population surveys as administrative techniques.** *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 222-227.—The technique of population analysis is explained, and two charts are incorporated in the article to illustrate this method. The method uses a simple table of interrelated variables by means of which "the institutional administrator is able to determine (a) how well the philosophy and policies of the Board of Control or other administrative body are being carried out, and (b) how well the needs of the institution and the area served are being met." In New Jersey five units provide custody and training for mental defectives. The resident population of each of these institutions, its movement, admission groups, and those on the waiting lists receive periodic study.—*M. W. Kuenzel* (Children's Home, Cincinnati).

2585. Zeddis, A. **Die Ursachen der seelischen Hemmungen und ihre Bekämpfung.** (The causes of psychic inhibitions and their therapy.) Bad Homburg: Siemens-Verlagsges., 1939. Pp. 48. RM. 1.50.—*R. R. Willoughby* (Brown).

2586. Zubin, J. **The mentally ill and mentally handicapped in institutions.** *Publ. Hlth Rep., Wash.*, 1938, Suppl. No. 146. Pp. ii + 20.—Data are presented concerning the distribution by geographic regions of the mentally diseased, mentally defective, epileptic, alcoholic, drug addicted, and other mentally handicapped persons in the U.S. in 1935. Hospitalization rate is used as an index of prevalence, and first admission rate as an index of current trends. The report includes all patients admitted to institutions for mental disease, mental defect, and epilepsy. Two tables indicate the number of institutions of different types, governmental and private, etc., and the number of patients in them. The remainder of the thirteen statistical tables and four figures present data on admission rates and hospitalization rates for each of the above listed diagnoses, and for all

combined, for the various geographic regions. The author summarizes: "There are considerable inter-regional differences." The northern and Pacific states have higher institutionalization rates, and the north has higher first admission rates, for all types of mental patients except alcoholics and drug addicts. In the latter the southern states exceed the northern.—*G. R. Thornton* (Nebraska).

[See also abstracts 2258, 2266, 2303, 2346, 2347, 2415, 2474, 2591, 2602, 2603, 2629, 2668, 2683.]

## PERSONALITY AND CHARACTER

2587. Aveling, F. **The relations involved in behavior.** *Character & Pers.*, 1938, 7, 96-102.—Character can be judged by observing the relationship between goals and the means employed to achieve them. Since these relationships are somewhat similar for man and lower animals, this method may be used for the study of character at the lower levels.—*M. O. Wilson* (Oklahoma).

2588. Bahle, J. **Arbeitstypus und Inspirations-typus im Schaffen der Komponisten.** (The work-type and the inspiration type among composers.) *Z. Psychol.*, 1938, 142, 313-322.—This elaboration of the author's paper at the XIth International Congress of Psychology considers the methods of work of several famous composers, relating method to typological characteristics, especially to the introvertive and the extravertive types.—*G. F. J. Lehner* (Vermont).

2589. Barker, R. **Frustration as an experimental problem. V. The effect of frustration upon cognitive ability.** *Character & Pers.*, 1938, 7, 145-150.—The following conclusions are drawn: "(1) Intellectual ability varies with the psychological situation of the individual. (2) Frustration may result in a reduction or an increase in the efficiency of the cognitive abilities in general. . . . (3) Processes have been proposed which account . . . for the interrelation of . . . cognitive and motivational functions. (4) It is clear that the explanations proposed have a close relation to theories of intelligence which are based upon statistical studies of individual differences in intelligence."—*M. O. Wilson* (Oklahoma).

2590. Carpenter, J., & Eisenberg, P. **Some relations between family background and personality.** *J. Psychol.*, 1938, 6, 115-136.—The Carpenter family background schedule was administered to a group of 50 college women at the dominant and 47 at the non-dominant extreme of an original group of 500. The Maslow social personality inventory was used as the criterion of dominance-feeling. The dominant group was differentiated by a higher socio-economic status, greater independence, stronger identification with the father than the mother, less association with adults and with girls, and more with older children. Being an only child made no difference in determining dominance-feeling; neither group was free from indications of emotional insecurity.—*E. D. Hunt* (Brown).

2591. Curtis, Q. F. **Frustration as an experimental problem. IV. Some physiological consequences of frustration.** *Character & Pers.*, 1938, 7, 140-144.—This is a discussion of neuroses established in animals in relation to frustration by such investigators as Pavlov, Liddell, Anderson, and Curtis, and their implications.—*M. O. Wilson* (Oklahoma).

2592. Drought, N. E. **An analysis of eight measures of personality and adjustment in relation to relative scholastic achievement.** *J. appl. Psychol.*, 1938, 22, 597-606.—The Bell adjustment inventory and the Wisconsin scale of personality traits were found to be unrelated to the difference between achieved grade-point averages in college and grade-point averages predicted from rank in high school class and the American Council test of scholastic aptitude. Even when the 20 most differentiating items on the personality tests were combined into a single index the correlation with grade-point discrepancies was only .20.—*E. Ghiselli* (Maryland).

2593. Eisenberg, P., & Zalowitz, E. **Judging expressive movement: III. Judgments of dominance-feeling from phonograph records of voice.** *J. appl. Psychol.*, 1938, 22, 620-631.—It was found that the judgment of dominance-feeling from phonograph records of voice is a little better than chance. Analysis of individual records revealed that the judgments are made on the basis of preconceived notions which may or may not correspond to reality.—*E. Ghiselli* (Maryland).

2594. Gibbons, C. G. **A short scoring method for the Link P. Q. test.** *J. appl. Psychol.*, 1938, 22, 653-656.—By using special scoring strips and two Veeders counters the time necessary to score the Link P. Q. test may be reduced from 20 to 8 minutes. This method also eliminates the expense of having a scoring sheet for each person, and decreases the likelihood of errors in scoring.—*E. Ghiselli* (Maryland).

2595. Gould, R. **An experimental analysis of "level of aspiration."** *Genet. Psychol. Monogr.*, 1939, 21, 3-115.—82 college undergraduates performed the following tasks: synonyms, addition, steadiness, symbol-digit substitution, cancellation, and target. After the completion of each performance and before the beginning of the next the subject was asked "What will you do next time?" Each subject was also given one two-hour interview. "Reactions when the performance was below the preceding estimate varied from feelings of failure, disappointment, discouragement, and 'weighting of the future,' to various combinations of these." "Subjects react to feelings of failure (a) by trying to do better; (b) becoming discouraged, disorganized, losing the desire to go on; (c) overcoming them by thinking of success, making excuses, 'weighting of the future'; or (d) by various combinations of these such as becoming discouraged but trying to do better anyway, making excuses but at the same time losing the desire to go on, etc." The study offers "no evidence one way or another to prove that an ascertainment of the 'true

aspiration level,' which refers to the 'momentary' not the 'ultimate' goal-strivings, would in itself be a significant clue to the personality organization and 'deeper strivings' of the individual." The author feels, however, that "there is no doubt that the aspiration level technique does bring to the surface certain significant personality characteristics."—*F. M. Teagarden* (Pittsburgh).

2596. Hartzfeld, C. A. J. **De la typologie des juristes.** (The typology of lawyers.) *Arch. Psychol.*, Genève, 1938, 27, 89-99.—The author finds two opposing types among lawyers: those who prefer rigidly formulated laws which permit no personal interpretation, and those who prefer broadly stated laws which allow the judge to take into account concrete cases. The first type corresponds to introversion, the second to extraversion. A concrete example is cited: in a recent discussion on a point of policy in law (revision of contracts due to changes in economic conditions during the last ten years), the members of the Society for Holland Jurists were divided in their vote 46 to 45, falling into the divisions given above, according to the author.—*E. Claparède* (Geneva).

2597. Haslerud, G. M. **Frustration as an experimental problem. III. Some interrelations of behavioral measures of frustration in chimpanzees.** *Character & Pers.*, 1938, 7, 136-139.—The pull-in technique was used on 6 adult chimpanzees (2♂, 4♀) and four child chimpanzees (3♂, 1♀). "The results . . . indicate that frustration is much more a function of how a reward-expectancy is thwarted than of the simple loss of the reward." Variations in reacting to frustrating objects, modes of expression and resistance to frustration, and extent of adaptation are discussed.—*M. O. Wilson* (Oklahoma).

2598. Hertz, M. R. **The "popular" response factor in the Rorschach scoring.** *J. Psychol.*, 1938, 6, 3-31.—The *P*, those responses given with greatest frequency by an average group, of five different investigators are compared, showing the forms upon which there is approximate agreement despite the variable factors which influence their determination. A summary of the norms for %*P* for groups of varying intelligence and of different personality pictures is presented. In general the %*P* is higher for the intelligent than for the unintelligent. A low %*P* is shown by groups which reveal neurotic tendencies or are maladjusted, behavior problem cases, or anti-social.—*E. D. Hunt* (Brown).

2599. Kraines, S. H. **Indices of body build, their relation to personality.** *J. nerv. ment. Dis.*, 1938, 88, 309-315.—There is disagreement between various schools as to the composition of the physical constitution. If there exists a correlation between the physique and psychoses, there must be some factor common to both. Fluctuations in the activity of this common factor which will bring on the disease more readily will not show themselves in the relatively static morphology, though they may be shown in the more plastic physiology. Study of the latter

promises the greatest amount of information.—C. R. Atwell (Boston Psychopathic Hospital).

2600. Kruger, B. L. A statistical analysis of the Humm-Wadsworth temperament scale. *J. appl. Psychol.*, 1938, 22, 641-652.—Analysis of the inter-correlations between the components of the Humm-Wadsworth temperament scale derived from the scores of 437 men who consulted the Adult Guidance Service in Los Angeles were found to differ markedly in many instances from those reported by the authors of the scale. Reasons for these discrepancies are discussed.—E. Ghiselli (Maryland).

2601. McQuitty, L. L. An approach to the measurement of individual differences in personality. *Character & Pers.*, 1938, 7, 81-95.—The factor sought for personality measurement in this study is the relationship between self concepts and objective concepts, that is, likes, dislikes, etc. More specifically, the factor involves the degree of concomitance of these evaluations ("egocentrism"). College students and psychotic patients are used as subjects, and their responses to certain questions in the Strong interest blank and the Bernreuter inventory furnish the data. A formula is developed by which indices of concomitance can be computed. The method differentiates between the two groups, indicating well-interrelated egocentrism in the students and uninterrelated egocentrism in the psychotics. Significance of these differences, despite the fact that the inventories are not highly efficient, indicates that the method has possibilities for measuring differences in personality. Further research is outlined. Several references are cited.—M. O. Wilson (Oklahoma).

2602. Morgenthaler, W. Die Methode und der Mensch. (The method and the man.) *Zbl. Psychother.*, 1939, 11, 27-35.—Morgenthaler discusses character types in relation to scientific methodology, as well as the antagonism between method and spirit, with special reference to war and psychotherapy. Valuable when limited to specific tasks, beyond that point method is a great danger, since it tends toward uniformity. The next war will be won, not by mechanisms, but by the soldier's spirit. Among 54 psychiatrists whose methods and personality Morgenthaler could judge, method predominated, at least in certain fields of research. The unmethodical group were more primitive and totalitarian personalities. Only 2 were genuinely vital; the remainder were simply undisciplined, "practical," hypomanic, or aggressive. Method is less important for the patient than for the psychotherapist, who becomes either a master or a prisoner of his favorite technique. Hence he should learn various methods and be analyzed, in order to find his most suitable medium and on it to erect something free and vital.—M. E. Morse (Baltimore).

2603. Mowrer, O. H. Frustration as an experimental problem. II. Some research implications of the frustration concept as related to social and educational problems. *Character & Pers.*, 1938, 7, 129-135.—Frustration plays two roles in human behavior: (1) It may be imposed to bring about a

higher evolution and development of the individual. (2) It may take the form of cultural privations for the purpose of developing group harmony and stability. Numerous problems for research are presented and several references are listed.—M. O. Wilson (Oklahoma).

2604. Pressey, S. L. A note on the critical note. *J. appl. Psychol.*, 1938, 22, 659-661.—In response to a criticism by R. L. Thorndike (*J. appl. Psychol.*, 1938, 22, 657-658) that on some of the sub-tests of the Pressey interest-attitude test a person may obtain a low maturity score by over-extensively checking all items, it is pointed out that the test does differentiate according to age and correlates with other measures of emotional maturity.—E. Ghiselli (Maryland).

2605. Rosenzweig, S. Frustration as an experimental problem. I. The significance of frustration as a problem of research. *Character & Pers.*, 1938, 7, 126-128.—This is the first of a series of six papers by the author and others on frustration as an experimental problem. It sketches very briefly the history of research in this field and indicates the nature of the subsequent papers by Mowrer, Haslerud, Curtis, and Barker. The last is by the present author.—M. O. Wilson (Oklahoma).

2606. Rosenzweig, S. Frustration as an experimental problem. VI. General outline of frustration. *Character & Pers.*, 1938, 7, 151-160.—There are three classes of frustration, privations, deprivations, and conflicts, and each of these may be sub-divided into external and internal. Frustration tolerance is conditioned constitutionally or by experience, and it may be generally low as in the psychotic, low in circumscribed areas as in the neurotic, or generally high as in the normal. Reactions to frustration may be adequate or inadequate, direct or indirect, defensive or perseverative, and specific or non-specific.—M. O. Wilson (Oklahoma).

2607. Schultz, R. S., & Roslow, S. Restandardization of the A-S study as a personnel form. *J. appl. Psychol.*, 1938, 22, 554-557.—The business revision of the Allports' ascendance-submission reaction study was restandardized and yielded a distribution of scores which closely approximates the normal curve instead of the platykurtic distribution usually obtained.—E. Ghiselli (Maryland).

2608. Sesemann, H. Der Kerl-(Mutter-)Typus und der Schalk-(Hetzären-)Typus. Eine bildungscharakterologische Untersuchung. (The servant or mother type and the rascal or prostitute type. A study in character formation.) Weimar: Böhlau, 1938. Pp. 63.—R. R. Willoughby (Brown).

2609. Stagner, R. Current trends in research on personality and character. *Character & Pers.*, 1938, 7, 161-165.—Papers read at the 1938 meeting of the American Psychological Association indicate that there is a shifting in interest away from tests, test procedures, and statistical studies for the sake of statistics, to the fundamental considerations in the psychology of personality, including the learning

process, the social matrix of personality, and the physiological basis of personality.—*M. O. Wilson* (Oklahoma).

2610. Thorndike, R. L. **Critical note on the Pressey interest-attitude test.** *J. appl. Psychol.*, 1938, 22, 657-658.—Since some of the sub-tests of the Pressey interest-attitude test contain more than twice as many immature as mature items, a person may obtain a low maturity score merely because he checks all items over-extensively. High correlations between the number of checks on mature and immature items indicate that an individual's score may be more a function of his checking threshold than of his maturity.—*E. Ghiselli* (Maryland).

2611. Tracy, J. A. **A study of personality traits of mature actors and mature public speakers.** *Speech Monogr.*, 1935, 2, 53-56.—*C. V. Hudgins* (Clarke School).

2612. Wilke, W. H. **The reliability of summaries of rating scale evaluations of student personality traits.** *J. genet. Psychol.*, 1938, 53, 313-320.—When 2 experienced judges summarized independently 10-15 ratings on each of 548 students, by rating each individual on a 9-point scale, the extent of their agreement was represented by a coefficient of contingency of .87. When the judges used different "chance halves" of the ratings available on 100 cases, the coefficient of contingency was .68.—*D. K. Spelt* (Mississippi).

[See also abstracts 2393, 2397, 2554, 2619, 2636, 2639, 2648, 2658, 2675, 2676, 2699, 2720, 2741, 2753, 2754, 2757, 2761.]

## GENERAL SOCIAL PROCESSES

(incl. Esthetics)

2613. Berner, G. E., & Berner, D. E. **Reading difficulties in children.** *Arch. Ophthal.*, Chicago, 1938, 20, 829-838.—The modern teaching of reading by the sentence method makes a greater demand on children's attention. Relatively slight ocular disturbances may so interfere with concentration as to retard learning. Visual immaturity is represented by poor acuity (which usually improves during the first year), and by frequent reversals of letters or syllables. Low hypermetropia may cause difficulty when adequate control of accommodation has not been acquired. Poor eye-hand co-ordination and deficiencies in fusion and fusional convergence constitute handicaps which are frequently overcome by orthoptic training. After ocular disturbances have been corrected, better reading habits can be established by remedial reading techniques.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

2614. Cobb, S., & Cole, E. M. **Stuttering.** *Physiol. Rev.*, 1939, 19, 49-62.—Neurological evidence is reviewed which may be taken to indicate that stuttering is due to some variation from normal cerebral structure. In some cases stuttering may be a "neurotic" manifestation. The principal types of

therapy are discussed.—*M. A. Rubin* (Worcester State Hospital).

2615. Curry, R., & Guthrie, D. **The mechanism of breathing for voice.** *Arch. ges. Phonet.*, Abt. 2, 1938, 2, 227-236.—*P. L. Krieger* (Leipzig).

2616. Davis, T. K. **Sounds in language.** *J. nerv. ment. Dis.*, 1938, 88, 491-499.—"Language is a living growth and speech began in and from action. All first sounds were modes of behavior and expressions of emotional tension, conditioned by the physiology shared by all peoples. Sounds of throat formations in the main associated themselves more inherently with the intestinal-sexual 'guts' of the person and the lip sounds with the less stirring phases. The latter day presence of 'personality' in certain sounds is conditioned by this primitive physiology. This 'tie-up' between emotions and physiology is still discernible in a fair percentage of the words of which a language is made."—*C. R. Atwell* (Boston Psychopathic Hospital).

2617. Dollard, J. **Hostility and fear in social life.** *Soc. Forces*, 1938, 17, 15-29.—*R. R. Willoughby* (Brown).

2618. Duncker, K. **Ethical relativity?** (An enquiry into the psychology of ethics.) *Mind*, 1939, 48, 39-57.—A principle of ethical invariance is opposed to the principle of ethical relativity. It assumes that the "same act, being the same with regard to all meanings involved, has never been observed to incur different valuations. Within the same pattern of situational meanings only one of two contrary behaviors can lay claim to the same ethical quality and valuation."—*H. Nelson* (Bryn Mawr).

2619. Eisenberg, P. **Judging expressive movement: I. Judgments of sex and dominance-feeling from handwriting samples of dominant and non-dominant men and women.** *J. appl. Psychol.*, 1938, 22, 480-486.—60 samples of handwriting were secured from 30 men and 30 women, 15 of each sex being rated at each extreme of dominance feeling on the basis of the Maslow social personality inventory and an interview. 10 judges were told to judge the writing as to the sex of the writer, asked to define the characteristics of male and female writing, and then told to judge writing for feeling of dominance in the writer. Sex judgments by the 10 judges were 72% correct. More errors were made in judging the sex of non-dominant men and dominant women than in the reverse cases. Judgments of dominance feeling from handwriting were little better than chance expectation.—*C. N. Cofer* (Brown).

2620. Evans, E. M. **Notes on the phonetics of the Creole language of Haiti.** *Arch. ges. Phonet.*, Abt. 1, 1938, 2, 195-210.—*P. L. Krieger* (Leipzig).

2621. Farnsworth, P. R. **Auditory acuity and musical ability in the first four grades.** *J. Psychol.*, 1938, 6, 95-98.—61 "unmusical" children from the lower four grades were contrasted as to auditory acuity with 49 who had been judged to be the most musical of a group of 1169, in a study to check the

validity of the Adlerian theory of organ inferiority. Acuity values at 7 pitch levels were obtained for the left ear alone, the right ear alone, and for both ears. In only one instance was there a significant difference between the auditory acuities of the two groups, and this held for but one of the three procedures. 15 out of the 21 critical ratios, while insignificant in size, did favor the Adlerian contention.—E. D. Hunt (Brown).

2622. Forchhammer, J. *Über das Wesen der Sprachelemente*. (The nature of the elements of speech.) *Arch. ges. Phonet., Abt. 1*, 1938, 2, 182-192; 193-194.—In phonetics we have to distinguish between two fundamentals: elements of speech proper and transitions. Both can be taken in the physiological as well as the acoustic sense. Systematic classification of speech elements is possible only on a physiological basis. This leads to a universal system of sounds. Thus an element of speech is above all determined by physiological data, and not by acoustic values or the estimation of the language community in question.—P. L. Krieger (Leipzig).

2623. Guthrie, D. *Physiology of the vocal mechanism*. *Brit. med. J.*, 1938, Part 2, 1189-1195.—W. J. Brodgen (Johns Hopkins).

2624. Hennings, H. *Studien zur Bedeutungsbildung im Bantu*. (Formation of meanings in Bantu.) *Arch. ges. Psychol.*, 1938, 101, 463-533.—A detailed study of the Bantu language reveals an "organic arrangement of speech material corresponding to the basic function of the word." The procedure consisted of grouping words on the basis of similarity in structure of the objects signified. Verbal consistencies are thus found to correspond to Gestalt consistencies.—H. D. Spoerl (American International College).

2625. Hermann, E. *Was ein Sprachforscher über die sogenannte Sprache der Tiere zu sagen hat*, (What a student of speech has to say about the so-called speech of animals.) Göttingen: Vandenhoeck & Ruprecht, 1938. Pp. 33. RM. 1.50.—R. R. Willoughby (Brown).

2626. Hjelmslev, L. *Über die Beziehungen der Phonetik zur Sprachwissenschaft*. (The relationships of phonetics to the science of language.) *Arch. ges. Phonet., Abt. 1*, 1938, 2, 129-134; 211-222.—The science of language is naturally divisible into the theory of contents and the theory of expression. In both we must distinguish between form and substance. As to contents and expression, the elements of language are immaterial functional forms without necessary relations to substance. We can think of language without its speech sounds, but not vice versa. Phonetics being a theory of substance, it must be built up deductively from the theoretical fundamentals of expression.—P. L. Krieger (Leipzig).

2627. Jensen, H. *Der sprachliche Ausdruck für Zeitauffassungen, insbesondere am Verbum*. (Verbal expression of conceptions of time, especially by

verbs.) *Arch. ges. Psychol.*, 1938, 101, 289-336.—In primitive languages the direct involvement of the reporter in experiences being described occasions highly concrete and subjective verbal devices. Past and future are co-experienced in "subjective time" with the present. Word forms are not modified by abstract suffixes or auxiliaries as in civilized languages. A multiplicity of temporal modes often exists, expressed by unsystematic inflections. Traces of most primitive usages occur in Indo-germanic languages, although variations among them are expressed systematically, e.g. by participles. Abstract expressions of time are largely lacking in primitive speech. Development reveals a consistent gain in objectivity and loss of concreteness.—H. D. Spoerl (American International College).

2628. Junker, H. *Die Bedeutung der Vokale*. (The significance of the vowels.) *Arch. ges. Phonet., Abt. 1*, 1938, 2, 223-248.—The vowels act as supporting nuclei while the consonants supply the marginal contours, acoustically as well as functionally.—P. L. Krieger (Leipzig).

2629. Kennedy, A. M., & Williams, D. A. *Association of stammering and the allergic diathesis*. *Brit. med. J.*, 1938, Part 2, 1306-1309.—W. J. Brodgen (Johns Hopkins).

2630. Knowler, F. H. *Graduate theses; an index of graduate work in the field of speech from 1902 to 1934*. *Speech Monogr.*, 1935, 2, 1-49.—The author presents a complete list of titles and authors of theses submitted for degrees of M.A. and Ph.D. in the field of speech from 15 institutions during the years from 1902 to 1934. Tables summarizing the number of degrees from each institution and a classified index accompany the list.—C. V. Hudgins (Clarke School).

2631. Kris, E., & Gombrich, E. *The principles of caricature*. *Brit. J. med. Psychol.*, 1938, 17, 319-342.—Portrait caricature began at the end of the sixteenth century. Reproductions are given from the seventeenth century to the present time. The caricaturist attempts to show the essential features of his subject; unlike the artist, who searches for the perfect form, he seeks the perfect deformity. Caricature is related to image magic, whereby distortion of features is taken to injure the person. Several stages of hostile action through caricature are discussed.—E. R. Hilgard (Stanford).

2632. Lasswell, H. D., & Blumenstock, D. *World revolutionary propaganda; a Chicago study*. New York: Knopf, 1939. Pp. 417. \$4.50.—R. R. Willoughby (Brown).

2633. Latif, I. *Some aetiological factors in the pathology of stammering*. *Brit. J. med. Psychol.*, 1938, 17, 307-318.—Two cases are presented. Both primary factors (e.g., feelings of inadequacy, taboos on words) and secondary factors (e.g., faulty breathing and reading) must be considered. Each case presents its own peculiar problems, and must, therefore, be treated individually.—E. R. Hilgard (Stanford).

2634. Luckiesh, M., & Moss, F. K. *Effects of leading on readability*. *J. appl. Psychol.*, 1938,

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22, 140-160.—Leading has little effect on the rapidity and accuracy of reading performance. However, readers dislike solid-set type. Using the frequency of blinking as a criterion of readability for 10-point linotype Textype "(1) both solid set and 1-point leading are about equal in readability and are the least desirable; (2) readability increases significantly as the leading is increased beyond 1 point; and (3) 3-point leading represents a practical optimum in readability."—C. N. Cofer (Brown).

2635. Mager, A. *Le fondement psychologique de la purification passive.* (The psychological foundation of passive purification.) *Etud. carmélit.*, 1938, 23, Part 2, 235-239.—To understand the mystic spirit in its causal evolution, a distinction must be made between the soul as *anima* and the soul as *spiritus*, and any scientific comprehension must suppose a psychological analysis as its basis. The author gives two causalities in such an analysis: a principal efficient causality, which is mystic in character, and an instrumental causality, which is pathological. He finds a different finality for these two states, which may easily be coexistent.—G. Goldman (Sorbonne).

2636. Mandel, H. *Rassenseele und Weltanschauung.* (Race psychology and world viewpoint.) *Z. Psychol.*, 1938, 142, 233-258.—Subtitle: A psychological question concerning German philosophy. The author, in discussing psychological types, refers to the occidental as extraverted and to the oriental as introverted, and relates these and other types to German philosophy of the present day.—G. F. J. Lehner (Vermont).

2637. Matson, G. A. *Blood groups and ageusia in Indians of Montana and Alberta.* *Amer. J. phys. Anthropol.*, 1938, 24, 81-89.—Blood tests made on 688 Indians showed 79.07% in the A blood group and 20.20% in the O group. Similar tests made on 691 half-breeds place 39.50% in the A group and 53.83% in the O group. A group of 291 Montana whites distribute as follows: 44.67% in the A group, 42.27% in the O group, and 10.31% in the B group. Observations on the frequency of ageusia to pethoxy-phenyl-thio-urea show less than 10% of the full-blooded Indians, 17.43% of the mixed bloods, and 35.43% of the Montana whites to be non-tasters.—W. J. Brogden (Johns Hopkins).

2638. Meggendorfer, F. *Das neue Ehegesetz.* (The new marriage law.) *Fortschr. Neurol. Psychiat.*, 1939, 11, 1-15.—The article discusses the recent German laws concerned with eugenics. Many of them have been developed recently in order to apply eugenics in Austria as has hitherto been done in Germany. The subjects covered by the laws are marriageable age and marriage fitness, particularly blood relationship, inheritable disease, and sterility. Fraudulent practice in contracting marriage is ground for annulment. The problem of mental disease is also discussed, although the term is not clearly defined. Bibliography.—D. S. Oberlin (Delaware State Hospital).

2639. Moore, G. E. *Personality changes resulting from training in speech fundamentals.* *Speech Monogr.*, 1935, 2, 56-59.—C. V. Hudgins (Clarke School).

2640. Müller, E. *Stimmphysiologische Untersuchungen an einem Kehlkopfmodell.* (Investigations on voice physiology by means of a model of the larynx.) *Arch. ges. Phonet.*, Abt. 2, 1938, 2, 197-214.—P. L. Krieger (Leipzig).

2641. Negus, V. E. *Evolution of the speech organs of man.* *Arch. Otolaryng.*, Chicago, 1938, 28, 313-328.—W. J. Brogden (Johns Hopkins).

2642. Nusbaum, E. A., Foley, L., & Wells, C. *Experimental studies of the firmness of the velar-pharyngeal occlusion during the production of English vowels u, i, v, e, a, ə, ae.* *Speech Monogr.*, 1935, 2, 72-80.—The force of velar-pharyngeal occlusion was studied during the articulation of 7 English vowels. The amount of air pressure necessary to "break down" the occlusion was chosen as the measure of the firmness of the occlusion for each vowel. A special apparatus was designed to introduce and control the pressures within the nasal cavity. Data from 20 male and 20 female subjects were obtained. Vowels described as "high front" and "high back" [i] and [u] showed the greatest degree of velar closure. Smaller pressures were necessary to break down the occlusion for those vowels described as "mid-front" "and mid-back." Open vowels showed still less firmness in the velar occlusion. Wide individual differences were observed; and openness of the oro-nasal passage does not necessarily imply a noticeably nasal tone.—C. V. Hudgins (Clarke School).

2643. Oswald, L. *Über die Taschenfaltenstimme.* (The pocket-fold voice.) *Arch. Sprach- u. Stimmheilk.*, 1938, 2, No. 4. Pp. 19.—R. R. Willoughby (Brown).

2644. Oswald, M. *Häufung alter Erstgebären-der. Ist ein Unterschied und ein Zunehmen in die letzten 15 Jahren festzustellen und ist der Prozentsatz bei den geistigen Arbeitern wesentlich höher?* (The frequency of old primipara. Is there a difference and an increase in the last fifteen years, and is the percentage greater among mental workers?) Düsseldorf: Nolte, 1938. Pp. 23.—R. R. Willoughby (Brown).

2645. Overbeek, W. H. *Massapsychologische onderzoeken in een volkstheater.* (Mass-psychological observations in a popular theater.) *Mensch en Maatsch.*, 1939, 15, 1-21.—The author observed the audience during seven different performances in a theater located in a tenement district in Amsterdam. All were variations on the theme that brute force may temporarily appear victorious, but justice will triumph in the end. This particular theater was chosen not only because of the homogeneity of the plays and the audience, which consisted largely of the same regular patrons, but also because of the patrons' lack of emotional repression and tendency to solidarity. Plays involving a

background similar to that of the patrons were more popular than others. Dialogue and play on words had to be very obvious to be enjoyed, while political remarks appeared to be lost. Preference was shown for a mixture of humor and tragedy. Plays involving criminals and prostitutes were appreciated provided such characters were balanced by "decent" ones and virtue was rewarded in the end. The most intense emotional reactions were observed to the "child" motive. The villains habitually were ushered out through an alley to protect them from the audience's wrath.—*H. Beaumont* (Kentucky).

2646. Pfister, O. *Das Erlebnis der Eingebung als psychologisches Problem.* (The experience of inspiration as a psychological problem.) *Z. Relig.-Psychol.*, 1938, 11, 65-112.—Part I describes famous historical instances of inspiration. In Part II the inspirations of 10 persons are examined genetically and dynamically. Part III deals with the relationships of tensions, conscience, instinct, and the unconscious as determinants of inspiration; the phenomenon is related to hallucination and other neurotic symptoms, but is not necessarily pathological.—*P. L. Krieger* (Leipzig).

2647. Powdermaker, H. *After freedom; a cultural study in the deep south.* New York: Viking, 1939. Pp. 428. \$3.00.—(Not seen).

2648. Ramseyer, L. L. *Factors influencing attitudes and attitude changes.* *Educ. Res. Bull., Ohio St., Univ.*, 1939, 18, 9-14; 30.—Scaled attitude tests, built by the Thurstone technique, were used before and at several intervals after the showing of documentary motion-picture films dealing with soil erosion and the work of the Works Progress Administration. The study involved 1500 people ranging from seventh grade to and including some adults. Statistically reliable shifts in mean scores occurred and endured after two months. Girls made greater changes than boys as a result of seeing the pictures. There are statistically reliable differences between most occupational groups (occupation of parent). Very little correlation was found between percentile rank on the Ohio State psychological examination and attitude, change of attitude, or persistence of change. Little correlation was found between information and attitude or between increase of information from the pictures and change of attitude. The author feels that there may have been changes in quality of information which were not registered in the tests of information but which did affect attitude shifts. "Those least favorable to the proposition were most changed by the motion picture."—*M. V. Louden* (Pittsburgh).

2649. Reker, H. *Stimmstörungen infolge im Kehlkopfspiegel sichtbarer Asymmetrien der Stimm-lippen.* (Voice disturbances in consequence of asymmetries of the vocal cords visible in the laryngoscope.) *Arch. ges. Phonet., Abt. 2*, 1938, 2, 215-226.—*P. L. Krieger* (Leipzig).

2650. Röheim, G. *The nescience of the Aranda.* *Brit. J. med. Psychol.*, 1938, 17, 343-360.—In many Australian areas the denial of the father's role in

procreation is compatible with the unconscious acknowledgment of the same role. The totems link sexual activities and birth in such a manner as to leave no doubt of at least an unconscious association. That the knowledge of the role of the male in procreation is not limited to the unconscious, but is known to Australian children, is demonstrated by a variety of facts reported in the paper. Probably the physiological knowledge is not considered important by the natives when talking to the anthropologist, for the official doctrine of spiritual conception looms large in their thinking. The official doctrine exerts only a mildly repressive influence on the physiological view.—*E. R. Hilgard* (Stanford).

2651. Seashore, C. E. *The harmonic structure of a musical tone.* *Music. Quart.*, 1939, 25, No. 1, 6-10.—Seashore criticizes an article by Otto Ortmann in the October 1935 issue of *The Musical Quarterly*. In this Ortmann had described tone quality in terms of pitch, loudness, and time. Seashore holds that Ortmann has neglected sonance (successive fusion). In the present article are cuts illustrating the sonance factor in spoken tones.—*P. R. Farnsworth* (Stanford).

2652. Seashore, H. G. *The psychologist in a school of music.* *J. consult. Psychol.*, 1939, 3, 24-29.—A psychologist in a school of music does not need to be a trained musician. Hitherto the lack of professional relations between psychologists and music schools has been due to the following reasons: (1) scientific notions are not usually well received by individualistic, art-minded staffs; (2) psychologists themselves have not been particularly interested in such schools; (3) schools are not prepared to reject students considered unfit by the application of tests of musical talent; (4) there is a legitimate distrust of psychological services on the part of schools. A psychologist can function in a school of music as personnel officer, educational adviser to the faculty, teacher, or research investigator.—*P. S. de Q. Cabot* (Simmons).

2653. Skinner, E. R. *A calibrated recording and analysis of the pitch, force and quality of vocal tones expressing happiness and sadness; and a determination of the pitch and force of the subjective concepts of ordinary, soft and loud tones.* *Speech Monogr.*, 1935, 2, 81-137.—9 males and 10 females were asked to repeat the vowel *ah* immediately after reading a piece of literature and listening to phonographic recordings of music judged by "experts" as indicating sadness and happiness. Oscillographic records of the vowels were made and analyzed. Results showed that the vocal responses to stimuli which evoke happiness are appreciably higher in pitch than the ordinary tones of the same subjects and higher than tones representative of sad states. This difference was found to be significant in both sexes. The average tones in response to literature or music judged as sad are practically the same as that of the subjects' ordinary tones. Differences in intensity and in tone quality were also observed for the two emotional states. Psychogalvanic readings taken

during the experiment showed the presence of disturbances of an emotional nature. A second experiment to determine the subjects' conception of ordinary, soft, and loud tones showed that pitch changes with the intensity of the tones. Soft tones are lower in pitch than those designated as ordinary, and loud tones are invariably higher in pitch than either.—*C. V. Hudgins* (Clarke School).

2654. **Smith, M.** *A study of change of attitudes toward the negro.* *J. Negro Educ.*, 1939, 8, 64-70.—The subjects for this study were taken over a three-year period from an undergraduate course on immigration and race problems. An adapted form of the Bogardus technique for measuring social distance was given to each of 46 students upon entering the class. At the end of the course the test was repeated. Scores were obtained for attitudes toward 50 nationality groups. The change of 2.2 scale points represents a critical ratio of 2.2. A second study was made of 35 students in 1937 in which the Hinckley scale was used. The change of 1.6 points represents a critical ratio of 6.36. The general conclusion is drawn that the results of the two studies, using different scales and given over a period of years, are substantially the same. "Future experiments will be of more theoretical significance if they seek to isolate the conditions responsible for the changes that do occur."—*W. E. Walton* (Nebraska).

2655. **Smith, N. B.** *Remedial instruction in reading with college freshmen.* *Bull. Sch. Educ., Ind. Univ.*, 1938, 15, No. 1. Pp. 35.—21 freshmen selected as a sample of the A. C. E. intelligence score distribution were given individual and group instruction in reading for a period of 8 months. Both good and poor readers in the group showed an increase in score on all the sections of the Iowa and Minnesota reading tests. The improvement was appreciably greater than that of a matched control group to whom no special attention was given, although the control group also showed some increase in scores. Extensive samples of the instructional materials are given.—*C. M. Louttit* (Indiana).

2656. **Steer, M. D.** *A qualitative study of breathing in young stutters.* *Speech Monogr.*, 1935, 2, 152-156.—A qualitative analysis of breathing records of 5- and 6-year-old stutters taken simultaneously from thoracic and abdominal levels during stuttering spasms show characteristics similar to those of adult stutters.—*C. V. Hudgins* (Clarke School).

2657. **Stronninger, —.** *Psychophysiologie sexuelle. Etude sociologique, clinique, et sociale.* (Sexual psychophysiology; a sociological, clinical, and social study.) Paris: Doin, 1938. Pp. 286. 55 fr.—*G. Goldman* (Sorbonne).

2658. **Sukov, M., & Williamson, E. G.** *Personality traits and attitudes of Jewish and non-Jewish students.* *J. appl. Psychol.*, 1938, 22, 487-492.—Jewish and non-Jewish college freshmen were the subjects for this study. The Minnesota scale for the survey of opinions and the Bell adjustment inventory were the tests employed. On the average

the Jewish student had a greater tendency to maladjustment than the non-Jewish student (opinions test). There were no significant differences on the adjustment inventory.—*C. N. Cofer* (Brown).

2659. **Thouless, R. H.** *Scientific method in the study of the psychology of religion.* *Character & Pers.*, 1938, 7, 103-108.—There is a marked poverty of scientific knowledge in the psychology of religion. Among the causes are the inadequacy of trained research workers, the relative inaccessibility of laboratory material, and the lack of adequate methods of studying the phenomena concerned. The author suggests the following methods which show some promise of results: controlled introspection, study of psycho-physiological conditions, statistical analysis, and the use of tests and rating scales.—*M. O. Wilson* (Oklahoma).

2660. **Voelker, C. H.** *An investigation of vibrato in the voices of the deaf.* *Speech Monogr.*, 1935, 2, 150-151.—Strobophotographic records of the voices of deaf children show no traces of vibrato. This does not mean that the deaf are incapable of producing vibrato. A possible explanation lies in the manner in which speech is taught to deaf children.—*C. V. Hudgins* (Clarke School).

2661. **Wunderle, G.** *La technique psychologique de l'Hésychasme byzantin.* (The psychological technique of Byzantine hesychasm.) *Etud. Carmélit.*, 1938, 23, Part 2, 235-239.—Hesychasm, which is still practiced on Mount Athos, must not be confused with quietism. The main difference between the two is the positive spiritual activity of hesychastic mysticism, which uses a certain psychological technique in its effort to attain union with God.—*G. Goldman* (Sorbonne).

[See also abstracts 2383, 2415, 2477, 2486, 2488, 2494, 2496, 2537, 2588, 2596, 2603, 2611, 2664, 2689, 2696, 2725, 2747, 2752, 2757, 2770, 2774, 2777.]

#### CRIME AND DELINQUENCY

2662. **Breguet, R.** *Preliminary survey of 1000 case histories of inmates of the Elmira Reformatory.* *Amer. J. med. Jurispr.*, 1938, 1, 101-118.—Psychiatric reports, including information secured from interviews with inmates, probation reports, questionnaires sent to various informants, physical and psychological examinations, diagnoses and prognoses, and recommendations, form the basis of the survey. The proportion of negro inmates was 19.7%. Over half the inmates were Catholics. Family disintegration was great. This category includes divorce, death, intemperance, delinquency, and financial inadequacy of the parents. Large families and delinquency of siblings were reported frequently. The average age of the inmates was 20, and most of them were unmarried. 10.1% were feeble-minded, but 95 had IQ's above 110. Truancy was common, and school achievement was low for the education received. 19.9% were venereally infected, and many used alcohol and drugs. Previous arrests and sen-

tences are discussed, and a few case histories are cited in this connection. Diagnosis and prognosis are discussed at some length.—*C. N. Cofer* (Brown).

2663. Cox, W. B., & Bixby, F. L. [Eds.] *Handbook of American institutions for delinquent juveniles; volume I, West North Central States*. New York: Osborne Association, 1938. Pp. 444.—*R. R. Willoughby* (Brown).

2664. Doll, E. A., & Fitch, K. A. *Social competence of delinquent boys*. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 137-141.—Measurements of social competence were made on 91 juvenile delinquent boys in residence at the State Home for Boys at Jamesburg, New Jersey. The following median ages give indications of the character of the group: life age, 14.0 years; verbal mental age according to Morgan's mental test, 9.3 years; non-verbal mental age according to Myers' mental measure, 10.5 years; length of residence, 0.8 year; social age according to the Vineland social maturity scale, 10.0 years, SQ 73; estimated social age, 11.8 years. "If this group may be taken as representative, the social competence of delinquents is strikingly below that of normal non-delinquents, being principally in the feeble-minded and borderline ranges of social competence."—*M. W. Kuenzel* (Children's Home, Cincinnati).

2665. Evjen, V. H. *Leisure-time guidance and delinquency*. Chicago: National Council on Education for Character and Citizenship, 1938. Pp. 20. \$0.20.—*R. R. Willoughby* (Brown).

2666. Evjen, V. H. *Schools and delinquency; a series of articles dealing with the responsibility of the school for the problem child*. Chicago: National Council on Education for Character and Citizenship, n.d. Pp. 35. \$0.25.—*R. R. Willoughby* (Brown).

2667. Hooton, E. A. *Crime and the man*. Cambridge, Mass.: Harvard Univ. Press, 1939. Pp. xvi + 403. \$3.75.—Anthropometric, morphological and sociological data were obtained from 13,873 convicts (including psychotics and defectives) and 3203 non-convicts (including psychotics) from ten states. Differences among the typical members of the state groups, ethnic groups, and ten offense groups are presented in detail, with sketches. Within ethnic groups, significant metric differences are found (1) between the native- and foreign-born; (2) among the offense groups; (3) within the normal group and in some of the psychotic ones, between convicts and non-convicts. In the large Old American group, nine body types are differentiated with regard to offense, previous convictions, marital status, occupation, and education. Normals and criminals do not have the same characteristics in this respect, and the differentiation is conspicuously absent for the negro and negroid groups. The ethnic groups are also ranked within the offense groups and with respect to psychosis. The supporting statistics are to be published later.—*N. R. Bartlett* (Brown).

[See also abstract 2679.]

## INDUSTRIAL AND PERSONNEL PROBLEMS

2668. Abel, T. M., & Hamlin, R. *An analysis of capacities of mental defectives skilled in lace-making. II. Performance pattern in selected non-standardized tests*. *J. appl. Psychol.*, 1938, 22, 175-185.—11 lace-makers and 7 failures at lace-making, whose IQ's were 56 or below, performed five tasks: braiding (given only to the lace-makers) and mirror drawing, which were preliminary to marking, card sorting, and tapping. These tests consisted of a basic performance which was interfered with by the performance of a slightly different task, following which the basic task was resumed. The lace-makers did relatively better on return to the familiar (basic) task than on the new tasks. The reverse was true of the failures. A control group of non-lace-makers, matched for MA and CA with the lace-makers and failures, performed the marking tests. Part of the control group gained on return to the familiar task and part lost, as would be expected if the original results were due not to practice in lace-making but to some more fundamental difference between the lace-makers and the failures.—*C. N. Cofer* (Brown).

2669. Anderson, R. G. *Some technological aspects of counseling adult women*. *J. appl. Psychol.*, 1938, 22, 455-469.—The Bernreuter personality inventory and the Allport study of values were used in a counseling project for a woman's organization. The results for these measures are discussed with respect to their value and limitation in the personal counseling of adult women. Cases are discussed with respect to neuroticism and introversion as measured by the scale. High religious and social values were found in these cases, and illustrative histories are presented. It is concluded that these measures may be of assistance to the counselor.—*C. N. Cofer* (Brown).

2670. Barnes, R. M., & Mundel, M. E. *A study of hand motions used in small assembly work*. *Univ. Ia Stud. Engng*, 1939, No. 16. Pp. 65. \$0.50.—*R. R. Willoughby* (Brown).

2671. Barss, W. J. *Mental tests for civil service examinations*. New York: Grosset, 1939. Pp. 237. \$2.00.—*R. R. Willoughby* (Brown).

2672. Blankenship, A. B., & Taylor, H. R. *Prediction of vocational proficiency in three machine operations*. *J. appl. Psychol.*, 1938, 22, 518-526.—Learning curves of 190 women operators in trimming, covering, and hemming operations in knitting mills showed an early sharp rise, negative acceleration, plateaus, and a point beyond which little improvement occurred. Those who left the company were found to be less proficient in trimming and hemming than those who remained at work. The reliabilities of production records were not high; reasons for this are advanced. Early proficiency is not a very good measure for prediction of later proficiency. Speed of learning in each operation is closely related to average hourly output.—*C. N. Cofer* (Brown).

2673. Bryan, A. I., & Perl, R. E. *A comparison of woman students preparing for three different*

vocations. Students in tions, divi professional fourth year tests of ro Bernreuter for neurotic between the each school were more The reliable levels betw Brown).

2674. Ca gathering in Ser. News, approaches the type of the worker the first app what skills a have made problem. B wide use in abilities of so with tests"; (3) "Many aptitude tes lated operat son's qualific ways of lear and workers analysis of a terms." As job is the " Study is need shortage and an employee why he rates the worker, position, of e society.—G.

2675. Cha into the part in accident c 118.—One g were obser tion to accide and learning and applicati of character ation of accide (William Wo

2676. Dod personality. 41 salesmen a personality in sex were the manager. 8 least success

vocations. *J. appl. Psychol.*, 1938, 22, 161-168.—Students in art, music, and teacher training institutions, divided into those taking their first year of professional training and those in their third or fourth year of training, took intelligence tests, three tests of rote memory, a motor speed test, and the Bernreuter personality inventory, which was scored for neurotic tendency. Only a few differences between the first year and advanced groups within each school were statistically significant, but there were more significant differences between schools. The reliable differences which occurred at both age levels between schools are listed.—C. N. Cofer (Brown).

2674. **Candee, B.** The psychological approach to gathering information about occupations. *Employ. Serv. News*, 1938, 5, No. 5, 6-10.—There are "two approaches to the study of a job: that of selection of the type of worker for the job and that of guiding the worker into the suitable type of job." Under the first approach, the first problem is to determine what skills are demanded by the job. Psychologists have made a good beginning in the study of this problem. But aptitude tests are not yet suitable for wide use in placement work, because (1) "The abilities of some persons cannot possibly be measured with tests"; (2) there is a lack of adequate norms; (3) "Many fundamental technical problems in aptitude testing are still unsolved"; (4) small, isolated operations are inadequate measures of a person's qualifications for a job. There are two chief ways of learning about a job: (1) asking employers and workers; (2) observing persons at work. The analysis of a job "must be in living and dynamic terms." As important as the skills required for a job is the "type" of person the employer wants. Study is needed of the paradox of simultaneous labor shortage and excess. What an employer wants in an employee may be determined by having him tell why he rates some as good and others as poor. To the worker, a job is a means of maintaining his position, of enjoying exercising a skill, and a place in society.—G. R. Thornton (Nebraska).

2675. **Chambers, E. G.** A preliminary inquiry into the part played by character and temperament in accident causation. *J. ment. Sci.*, 1939, 85, 115-118.—One group of 11 men and another of 24 girls were observed with respect to certain traits in relation to accident proneness. Few of the accident-prone were rated highly at "handwork," "intelligence and learning ability," "dependability," "industry and application," etc. It is believed that qualities of character and temperament enter into the causation of accidents among such workers.—D. G. Ryans (William Woods College).

2676. **Dodge, A. F.** Social dominance and sales personality. *J. appl. Psychol.*, 1938, 22, 132-139.—41 salesmen and 34 saleswomen took the Bernreuter personality inventory. The nine best sellers of each sex were then selected by the store personnel manager. 8 men and 7 women were selected as the least successful sellers. The inventories of these

groups were scored for social dominance. Salespeople score high in social dominance, and the best sellers tend to score higher than the poorest. Low correlations were secured, however, between social dominance scores and sales success. Other scorings of the inventory failed to differentiate these two groups any better. Then the records were analyzed, and certain items were selected which did differentiate between the groups. The other 42 original subjects' records were studied for these items: the correlation between sales success and score on these items was .60 for men and .36 for women. The author argues for breaking away from the established categories of personality.—C. N. Cofer (Brown).

2677. **Fryer, D.** Applied and professional attitudes. *J. consult. Psychol.*, 1939, 3, 1-10.—The presidential address delivered at last year's annual meeting of the American Association for Applied Psychology. The scientific method appeared and was established in theoretical psychology, and applied psychologists should not allow utilitarian purposes to outweigh the necessity for maintaining systematic attitudes in their investigations, which themselves must be experimental. The emergence of practitioners in psychology implies the development of professional attitudes regarding accepted ways of practice, attitudes of personal worth, and attitudes of service to society. Particularly important are attitudes of professional adjustment and co-operation. "The professional psychologist cannot be a cloistered metaphysician of mystical authority." Portrait of D. G. Paterson.—P.S. deQ. Cabot (Simmons).

2678. **Humke, H. L.** Full use of employee ratings. *Person. J.*, 1939, 17, 292-295.—R. R. Willoughby (Brown).

2679. **Jungmichel, G.** Der Alkoholgehalt des Blutes und seine kriministische Bedeutung bei Verkehrsunfällen. (Alcohol content of the blood and its significance in criminal law in connection with traffic accidents.) Berlin-Dahlem: Reichsstelle gegen d. Alkoholmissbrauch, 1938. Pp. 35.—R. R. Willoughby (Brown).

2680. **Kinder, E. F.** An experiment in training of interne psychologists in a state institution. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 108-114.—This article emphasizes the responsibility of institutions in establishing training relationships between universities and public institutions. The program at Letchworth Village for students in training in the field of clinical psychology was evaluated. Opinions regarding organization and worth of such a program were solicited from a group of young workers and from about 30 clinical psychologists who are in charge of somewhat similar centers. Selection of students, organization of training program, supervision, and relationship to the university are discussed.—M. W. Kuenzel (Children's Home, Cincinnati).

2681. **Kolstad, A.** Employee attitudes in a department store. *J. appl. Psychol.*, 1938, 22, 470-479.—A questionnaire was devised, consisting of (1)

a battery of questions intended to measure general over-all job morale, and (2) a large number of specific questions to cover the desired fields. Results for rank and file employees are here presented. Morale scores for the non-selling employees were significantly lower than for the selling employees. Attitudes and beliefs of these groups related to morale are listed. With increased length of service in the store, the morale scores seemed to decrease.—C. N. Cofer (Brown).

2682. McNicholas, H. J. Selection of colors for signal lights. *Bur. Stand. J. Res., Wash.*, 1936, 17, 955-980.—An accompanying abstract by the author states: "Various colored lights produced by combinations of a tungsten-filament lamp and commercially available colored-glass light filters were tested for efficiency and accuracy of identification in each of two six-color signal systems consisting, respectively, of red, orange-yellow, white, green, blue, and purple lights, and of red, orange, yellow, white, green, and blue lights. The tests were made by 38 normal observers on an outdoor range of 950 feet, for different weather conditions and signal intensities. Comparison between the two systems under prescribed service conditions showed that the use of purple with adequate lamp intensity is preferable to the use of both orange and yellow with red and white. Partial chromaticity tolerances and minimum lamp intensities have been determined for the six-color system containing purple."—G. R. Thornton (Nebraska).

2683. Meinel, H. Indikationen und Kontraindikationen bei der Auswahl von Flugzeugführeranwärtern unter Beschränkung auf die körperliche Allgemeinverfassung, die Atmungs- und Kreislauforgane, das Verdauungs- und Urogenitalsystem sowie das Zentralnervensystem in physischer und psychischer Hinsicht. (Indications and contraindications in the choice of aviation candidates, with special reference to general physical constitution, respiratory and circulatory organs, digestive and urogenital systems, and central nervous system with respect to physical and psychic manifestations.) Zittau i. Sa.: Ritter, 1938. Pp. 30.—R. R. Willoughby (Brown).

2684. Moore, H. Psychology for business and industry. New York: McGraw-Hill, 1939. Pp. xi + 527. \$4.00.—"An attempt is made to introduce the student to those aspects of personnel problems in business and industry to which psychology has given, or can give, a contribution. It has been necessary to consult other than psychological journals . . . for the majority of the illustrations and tables given in the text." Seven chapters are concerned with the selection of employees, three with promotion, training, and motivation, and three with accidents, fatigue, and 'problem' employees. Two final chapters deal with advertising and selling. The volume is heavily documented and practically all the sources cited are printed in English.—J. G. Jenkins (Maryland).

2685. Murphy, P. F. Some functions of the placement interviewer. *Employ. Serv. News*, 1938, 5, No. 5, 3-5.—The placement interview functions between the unemployed and the fields of employment. The interviewer is the "appraiser of the suitability of jobs and men." To discharge his duties, he should gain specific knowledge of the occupations and of the skill and mental aptitudes required. He must direct the interview so as to obtain the specific data about the job requirements or about the applicant's qualifications. Accuracy of classifications and knowledge of interrelationships between jobs is necessary for efficient referrals.—G. R. Thornton (Nebraska).

2686. Schiller, N. Intelligence differences in reaction to advertisements. *J. appl. Psychol.*, 1938, 22, 169-174.—46 children in the third term of high school rated 48 advertisements as excellent, good, medium, poor, terrible. The subjects were classed into three groups: high (19 S's, av. IQ 135), average (15 S's, av. IQ 104.5), and low (12 S's, av. IQ 83) in intelligence. Rank difference correlations among the judgments of the groups were: average and high groups, .73; average and low groups, .75; high and low groups, .58. The more intelligent subjects were less responsive to color than the less intelligent subjects. The intelligent children preferred advertisements with pictures of people in them, and also humorous advertisements. Other differences are noted.—C. N. Cofer (Brown).

2687. White, W. Interview-atmosphere. *Employ. Serv. News*, 1938, 5, No. 3, 12.—The author makes the following suggestions regarding how to give applicants a feeling of personal worth: The indirect method is more subtle and convincing than the direct. Applicants can be made to assume that one appreciates them by remembering facts about them, by showing esteem for their occupations, by asking for expressions of opinion, by emphasizing equality.—G. R. Thornton (Nebraska).

2688. Williamson, E. G., Stover, R. D., & Fiss, C. B. The selection of student nurses. *J. appl. Psychol.*, 1938, 22, 119-131.—In this paper correlations of various test scores with certain measures from the first year in nursing school are reported. These measures, which constitute the criteria for which the predictive values of the tests were found, were: (1) average grade in science courses; (2) average grade in practical courses; (3) average grade in clinical courses; (4) average grade in all courses during the first year; (5) total score on an objective examination covering the subjects of instruction in the 20 schools from which records were taken.—C. N. Cofer (Brown).

[See also abstracts 2510, 2596, 2709.]

#### EDUCATIONAL PSYCHOLOGY (incl. Vocational Guidance)

2689. Allendy, R., & Lobstein, H. Le problème sexuel à l'école. (The problem of sex in the school.)

Paris: Editions Montaigne, 1938. Pp. 253. 20 fr.—The authors discuss the present-day position of the problem of sex and the psychosexual situation of the child in relation to the school. They believe that a new concept of sexuality and of sex education would bring about a happy solution to all these difficulties.—*G. Goldman* (Sorbonne).

2690. **Anderson, R. G.** A note on a case of spelling difficulty. *J. appl. Psychol.*, 1938, 22, 211-214.—A discussion of methods and results in the remedial work in spelling with this case is presented.—*C. N. Cofer* (Brown).

2691. **Ank, F.** Die Stellung des heutigen Volks-schulabgängers zur Berufswahl. (The basis of vocational choice of the present-day common school graduate.) *Arch. ges. Psychol.*, 1938, 102, 64-156.—An elaborate psychological study was made of the vocational choices of the 332 boys finishing the *Volksschule* course (at age 14) in Würzburg in 1937. Ten schools were represented. These boys had marked proletarian outlook and inclinations, the preferred occupations (48%) being in heavy and mechanical industries. The author thinks this interest corresponds to technology on the level above common school. Mercantile and service occupations were strikingly avoided. The most important external factor in choice was positive or negative influence of the father's occupation, suggesting in positive instances the importance of opportunity for close-range knowledge of the occupation. But where fathers were craftsmen or engaged in service activities the influence was negative. Only 7% named ideal occupations beyond common school training. The principal motive came from personality structure of the boy (66%); 18% chose from considerations of economic security, and 11% from influence by others. Interest in school subjects and hobbies corresponded closely with choices.—*H. D. Spoerl* (American International College).

2692. **Bennett, A.** Launching a reading project. *J. excep. Child.*, 1939, 5, 121-125.—Part 2 of a paper appearing originally in the January issue is concerned with the non-reader. Careful diagnosis is of the first importance in attempting to help these children. Often the dominant problem to be overcome is an emotional one, due to repeated failure in reading. The general principles used in the construction of the reading exercises for the New York City reading project are described. The importance of developing correct oral expression, clearing up word confusions, and promoting accuracy in interpretation are stressed. Simple, interesting supplementary material in line with the pupil's interests should be used.—*L. A. Averill* (Worcester Teachers College).

2693. **Burkhardt, G.** Die psychologischen Grundlagen und Grenzen der körperlichen Ausbildung der Frau. (The psychological basis and limitations of the physical education of women.) *Arch. ges. Psychol.*, 1938, 101, 337-394.—Participation in athletics by women depends chiefly upon the kinesthetic, rhythmic, esthetic, and similar pleasurable properties of the games and sports. Except for fencing,

dual contests become ineffectual because of the lack of combative motivation found, e.g., in boxing by men. On the other hand, team activities requiring co-operative motivation and group loyalty are also not generally successful. Moreover, self-competition called for in gymnastic and field athletics is not strong. Tennis and dancing, always popular with girls and women, emphasize esthetic and similar interests, as through costume, spectators, etc. Experimental study of comparative performance reveals sex differences that increase with demands upon endurance. Introspective reports confirm the conclusions.—*H. D. Spoerl* (American International College).

2694. **Cook, K. M.** Opportunities for the preparation of teachers of children of native and minority groups. *U.S. Off. Educ. Pamph.*, 1937, No. 77. Pp. iv + 11.—The educational welfare of minority groups in the U.S. involves specialized problems both in method and content of instruction. This study presents "a survey of facilities offered for the special preparation of teachers of children of native and minority groups in higher institutions of learning." Effort was made to reach all teacher-education institutions. Of the 262 universities and colleges, 78 teachers' colleges, and 40 normal schools that reported, 15 had courses or other provision for such preparation. A table summarizes the types of work offered in each of these 15 institutions. There follow detailed statements of the minority group served, the means employed for the training, and description of courses offered by the 15 institutions.—*G. R. Thornton* (Nebraska).

2695. **Cralle, R. E., & Burton, W. H.** An examination of factors stimulating or depressing teacher morale. *Calif. J. elem. Educ.*, 1938, 7, August, 7-14.—About one half of the teachers in a city school system responded to a request to turn in unsigned statements listing any specific irritations, frustrations, or blocks which were inimical to their happiness or destructive of their initiative and efficiency as teachers. The statements received were classified into five general groups: (1) frustrations due to dissatisfaction with administrative policies; (2) frustrations due to unsatisfactory channels for adjustment of grievances and unfair treatment; (3) frustrations due to inadequate supervision, along with superimposed methods; (4) frustrations due to inadequate and disproportionate recognition and encouragement; (5) frustrations due to general personal relationships involved. 27 basic principles for guidance in the construction of techniques for the removal of frustrations are suggested by the authors, and 29 specific recommendations are presented for removing frustrations and thus developing teacher morale.—*D. Bailey* (Mary Baldwin College).

2696. **Crosland, H. R.** Superior elementary school readers contrasted with inferior readers in letter-position, "range of attention," scores. *J. educ. Res.*, 1939, 32, 410-427.—Comparison of 31 superior and 34 inferior public school readers were tested with Crosland's letter-position, "range of

attention" tachistoscopic test, and with various tests of eye dominance. It was found that the superior readers excel the inferior readers in the left visual field, and the reverse situation is true for the right visual field. Hence the superior readers give results corresponding to those of right-eyed college students and the inferior to left-eyed college students. The tests for eye dominance reveal that a majority of the defective children were left-eyed and the majority of the superior children were right-eyed.—S. W. Fernberger (Pennsylvania).

2697. Davis, D. P., & Morneweck, C. D. Achievement of seniors from public secondary schools of Pennsylvania in the 1937 state scholarship examination with respect to the size of enrollment in school attended. *Bull. Dpt. pub. Instruct. Pa., Res. Serv. Educ.*, 1937, No. 4. Pp. 15.—Scores on the state scholarship examination of seniors from high schools with an enrollment below 250 are compared with those attending schools with a greater enrollment. Standardized examinations of intelligence, English knowledge, and social studies were used as criteria. The quartile points in every division of the examination were higher in the larger schools; but while the lower 50% of seniors in the larger schools made scores in history and social science higher than the difference on the mental test scores would indicate, the upper 50% made lower scores in the social subjects than would be expected from the mental test scores.—L. A. Averill (Worcester Teachers College).

2698. Eames, T. H. The speed of picture recognition and the speed of word recognition in cases of reading difficulty. *Amer. J. Ophthal.*, 1938, 21, 1370-1375.—"Eye examinations and measurements of the speed of picture recognition and the speed of word recognition were made in 100 cases of school children who were having trouble with reading, and 50 cases of school children who were without reading trouble. It was found that the poor readers tended to exhibit slower speeds of both picture and word recognition and therefore of the speed of recognition in general. The children without reading trouble but with eye difficulties tended to be slower in the speed of recognition than did a group of 20 school children who were without eye or reading trouble. Some support was found for the hypothesis that eye defects may retard the speed of recognition. The eye conditions more common among readers were found to be hypermetropia, muscular imbalance at the reading distance, and deficient fusion for textbook type."—M. Keller (Butler Hospital).

2699. Engle, T. L. The use of a short personality schedule in high school personnel work. *J. appl. Psychol.*, 1938, 22, 534-538.—106 high school sophomores whose mean CA's for boys and girls respectively were 15.6 and 15.3 were the subjects in this study. A questionnaire concerning social adequacy and activity and the Willoughby personality inventory were administered to the students. Some relation between the feeling of being socially handicap-

ped and the amount of social activity and score on the inventory is shown.—C. N. Cofer (Brown).

2700. Foran, T. G. The teaching of reading. *Cath. educ. Rev.*, 1939, 37, 30-34.—W. L. Wilkins (Springfield Junior College).

2701. Gates, A. I., & Russell, D. H. The effects of delaying beginning reading a half year in the case of underprivileged pupils with IQ's 75-95. *J. educ. Res.*, 1939, 32, 321-328.—A study of two groups of 20 children each paired on the basis of intelligence and reading readiness. Reading instruction for one group was delayed for half a year after school entrance. The results, especially from the study of individual cases, indicate that mere delay does not remove any of the main sources of reading difficulty.—S. W. Fernberger (Pennsylvania).

2702. Gillett, N. The maturity factor in the grade placement of certain punctuation skills in bibliography form. *J. educ. Res.*, 1939, 32, 449-455.—The problems selected were the use of quotation marks and the underlining of the title of a book or magazine by proof-reading tests. In the Lincoln (Nebraska) public schools, 153 children in the fifth and sixth grades were tested. These children had little knowledge at the beginning of the tests of the proper use of these two forms of punctuation. After two weeks' instruction, very great improvement was noted when the same children were retested. The results indicate that such skills require a mental age equal to that of the average child in the second semester of the fifth grade.—S. W. Fernberger (Pennsylvania).

2703. Good, C. V. Doctors' theses under way in education, 1938-1939. *J. educ. Res.*, 1939, 32, 371-400.—A list of 593 theses; in each case are given the name of author, title of thesis, institution, and name of the faculty member under whom the work is being done. The topical index is divided into 19 categories. "Psychology and measurement" has 114 titles.—S. W. Fernberger (Pennsylvania).

2704. Gray, R. A. Bibliography of research studies in education, 1936-1937. *U.S. Off. Educ. Bull.*, 1938, No. 5. Pp. xiv + 373.—This bibliography lists 3530 studies reported by 122 colleges and universities; it includes 541 doctoral dissertations, 2736 masters' theses, and 253 studies reported as faculty research. The titles, usually accompanied by brief descriptions of the studies, are classified under the following headings: history of education, educational biography, current educational conditions, theories and principles, special methods of instruction and organization, educational psychology, child study, tests and testing, research, curriculum studies, preschool, elementary, secondary, higher, and adult education, teacher training, status of teachers, college professors and instructors, administration of schools, school management, school buildings and equipment, educational sociology, racial groups, exceptional groups, libraries. Index of institutions, author index, and subject index are appended.—G. R. Thornton (Nebraska).

2705. C intellectu 109.—The New York instruction for more of whom children a social mal of the child Child Gui is present superior in ized and types is interests a 500 (Spey experiment with two from 130 presented children. individual found mo Teachers C

2706. G vocational 22, 558-57 be brought tional inter rather than custom, 1 selected an items were as compare two forms distribution the two for divisions of dence of H Ghiselli (M

2707. Gr ing and lea 1939. Pp. phasizes the application schoolroom phasis upon learning. E each of whi gested readi note to the review que are: The na tion; facts a learning in p habits, skill observation development and wi action; the d social attitu

2705. Greenberg, B. B. **The education of the intellectually gifted.** *J. excep. Child*, 1939, 5, 101-109.—The assistant superintendent of schools of New York City, in charge of the supervision of instruction in the elementary schools, makes a plea for more adequate handling of the gifted children, of whom there are 6000 in New York City. Bright children are subject to the same personality and social maladjustments as are average children. 4% of the children referred last year to the Bureau of Child Guidance had IQ's of 130 or above. Evidence is presented to indicate that gifted children are superior in all activities to the unselected. A socialized and vitalized program of education for these types is essential, touching their lives and their interests at every possible point. In Public School 500 (Speyer School) in New York City a five-year experimental educational program is being conducted with two classes and fifty children ranging in IQ from 130 to 200, with median at 142; details are presented of the main enrichment project for these children. The individual contract method, with an individualized method of instruction, has been found most successful.—L. A. Averill (Worcester Teachers College).

2706. Greene, E. B., & Dahlem, V. **The Michigan vocational preference list.** *J. appl. Psychol.*, 1938, 22, 558-575.—To study any differences which might be brought about by grouping the items of a vocational interest schedule into occupational divisions rather than arranging them alphabetically as is the custom, 181 vocational preference items were selected and arranged in both fashions. When the items were grouped the test-retest reliability was .89 as compared with .76 for the ungrouped form. The two forms showed no significant differences in the distribution of responses, the correlation between the two forms being .83. In some of the occupational divisions of the grouped form there was some evidence of halo effects, but these were slight.—E. Ghiselli (Maryland).

2707. Griffith, C. R. **Psychology applied to teaching and learning.** New York: Farrar & Rinehart, 1939. Pp. xii + 650. \$2.60.—The author emphasizes the genetic point of view in presenting the application of basic facts about human nature to schoolroom practices. The book is eclectic, with emphasis upon the functional aspects of teaching and learning. Each chapter is divided into two sections, each of which has a preview, a summary, and suggested reading. Each chapter is also preceded by a note to the student and concludes with a series of review questions and exercises. Chapter headings are: The nature of psychology; the nature of education; facts and principles of growth; maturation and learning in growth; the practical control of learning; habits, skills and postures; perceiving and skill in observation; ideas, concepts, and language; the development of attending; the development of wanting and willing; feeling, interest, and emotional action; the development of thinking; personality and social attitudes; personality and the problems of

adjustment; adjustments to individual differences; retrospect and prospect.—P. S. de Q. Cabot (Simmons).

2708. Grossnickle, F. E., & Snyder, J. H. **Constancy of errors to basic facts in the fundamental operations in arithmetic.** *J. educ. Res.*, 1939, 32, 336-344.—The basic facts in the four operations were given to 100 pupils in each of grades IV-VIII. Five tests were given for each operation. Most of the errors in the significant facts in addition and subtraction were found to be sporadic. The errors in the significant facts in multiplication and division were more constant than for the other two processes, but there is a small percentage of real persistence of errors. The errors in the zero facts in addition and subtraction were constant in about 3 out of 4 cases and these facts were learned at about the sixth grade level, while the errors in the zero facts in multiplication persisted through grade VIII and in division through grade VII.—S. W. Fernberger (Pennsylvania).

2709. Hanna, J. V. **The contributions of psychology to guidance and placement.** *Employ. Serv. News*, 1938, 5, No. 9, 7-9.—The psychologist's major function in guidance is to assist the client to make an adequate appraisal of himself. This requires examination and appraisal of a considerable range of information. Objective tests, ranging from general to specific and including tests of intelligence, aptitudes, and interests, contribute to an adequate picture of the individual; but test results should not be overemphasized to the exclusion of other types of information.—G. R. Thornton (Nebraska).

2710. Hildreth, G. **The educational achievement of gifted children.** *Child Develpm.*, 1938, 9, 365-371.—Stanford achievement test scores were available for each year since 1922 for three groups of children: G 1, with IQ's from 130 to 140; G 2, with IQ's above 140; and A, the average group. The data show that the IQ is a factor in school achievement. G 2 is consistently higher in achievement scores than the others, most in reading, next in spelling, and least in arithmetic. No special instruction was provided for this group. Individual differences within groups were large.—C. N. Cofer (Brown).

2711. Hill, A. S. **Can the elementary grade teacher identify potential behavior cases?** *J. excep. Child*, 1939, 5, 110-120.—In 1928 900 elementary school teachers of Des Moines, in the course of a mental-hygiene survey conducted by a visiting psychiatrist, were each asked to select their two outstanding potential behavior-problem children, on the basis of indices of potential maladjustment supplied by the psychiatrist. Results are presented of a check of the subsequent histories of 526 of these children made in 1936. In less than 40% of the cases can the teacher predict maladjustment sufficiently well to warrant referral to an adjustment agency or to juvenile court; no single type of symptomatic behavior is more likely to lead to undesirable outcomes than is any other type; specific types of symp-

tomatic behavior observed in the early school history do not tend to persist in well-defined directions; the teacher must accept behavior deviations as symptomatic of underlying social and personality maladjustment and as having no special significance in themselves.—*L. A. Averill* (Worcester Teachers College).

2712. **Jones, E. S. Predicting the occupational success of the college student.** *Employ. Serv. News*, 1938, 5, No. 5, 11-13.—This article, without presenting the actual data, summarizes the results of a recent survey at the University of Buffalo. On the basis of interviews, recent graduates were rated for occupational adjustment. Analysis of data on all subjects indicated that ratings on personality traits have predictive value for occupational adjustment, but grades and extracurricular activities have relatively low predictive value. Comparison of a few outstandingly successful persons with a few who failed occupationally indicated that for men college grades are as good a criterion of later work success as are measures of personality, for women grades are less important, and outside activity, particularly if showing leadership, is important. The placement interviewer of men thus should be alert to superior or inferior grade records, but for in-between cases a good personality is far more important. 45 graduates who failed to make satisfactory occupational adjustment had three main defects: unreliable conduct; handicaps in language, dress, or manners; immaturity. The usual personality tests would not detect these people.—*G. R. Thornton* (Nebraska).

2713. **Koon, C. M. School use of visual aids.** *U.S. Off. Educ. Bull.*, 1938, No. 4. Pp. viii + 68.—This report is an interpretative study of the data collected in the national survey of forms of visual instruction used in elementary and secondary schools today.—*G. R. Thornton* (Nebraska).

2714. **Koon, C. M. Sources of visual aids and equipment for instructional use in schools.** *U.S. Off. Educ. Pamph.*, 1937, No. 80. Pp. iii + 44.—A rather comprehensive list of the principal distributors of auditory and visual aids is presented. The list includes governmental and educational agencies and commercial dealers, who can supply specimens and models, pictures, maps, charts, lantern slides, motion pictures, equipment for above, etc. A list of agencies interested in the educational use of motion pictures, along with a statement of the purpose of each agency, is also presented. A final section lists periodicals dealing with the educational use and influence of motion pictures.—*G. R. Thornton* (Nebraska).

2715. **Lackey, E. E. Correlation of geography and history in the high school.** *Sch. & Soc.*, 1939, 49, 126-128.—48 landscape features were rated by prominent historians and geographers as to their importance in a course in U. S. history in high school. The experts were in high agreement as to the usefulness of all the items. A test based upon these 48 features was prepared and administered to 4764 high school pupils in 43 states, 2959 of whom had

just completed their course in U. S. history and 1805 of whom were to study it the following year. Those pupils who had finished the course answered only 13.2% correctly, and those who expected to take it the next year answered 8.0% correctly. It is concluded that little attention is given in high school courses in U. S. history to geographic backgrounds, and that certainly the landscape features considered significant in U. S. history by geographers and historians are not taught to high school pupils.—*L. A. Averill* (Worcester Teachers College).

2716. **Martens, E. H. Opportunities for the preparation of teachers of exceptional children.** *U. S. Off. Educ. Bull.*, 1937, No. 17. Pp. vi + 58.—A survey conducted by means of questionnaires and college catalogs indicated that in 1936 there were 118 schools offering courses preparatory to teaching of exceptional children—an increase of 66% over 1931. Of these, 48 were universities, colleges, or normal schools that offered an organized unit of courses designed to prepare teachers for at least one of the following types of exceptional children: blind and partially seeing, crippled, deaf and hard-of-hearing, delicate, speech-defective, mentally retarded, mentally gifted, socially or emotionally maladjusted. The types of courses offered by these institutions are listed in tabular form. There follows a detailed description of the courses offered by each institution. An appendix lists the 54 institutions that offered some courses (but not an organized sequence of courses) preparatory to teaching exceptional children.—*G. R. Thornton* (Nebraska).

2717. **Martens, E. H. Occupational experiences for handicapped adolescents in day schools.** *U. S. Off. Educ. Bull.*, 1937, No. 30. Pp. iv + 61.—The article reports an investigation of what day schools are doing in the occupational preparation of mentally and physically handicapped adolescents. The physically handicapped include the crippled and those with visual or auditory handicaps. The survey covered fifty "representative cities in which progressive practices are under way." Suggestions concerning what schools ought to be doing are included. Annotated selected references are appended.—*G. R. Thornton* (Nebraska).

2718. **Millot, A. Les grandes tendances de la pédagogie contemporaine.** (Main tendencies in contemporary pedagogy.) Paris: Alcan, 1938. Pp. 176. 15 fr.—A history of the development of the pedagogical movement under the influence of social and political factors is followed by a consideration of the relationship of pedagogy to the sciences and to philosophy. Certain dominant tendencies can be observed in modern pedagogy: particular emphasis is given to the subject of the personality and the natural development of the child, and a harmonious intellectual, moral, and physical education is the end in view.—*G. Goldman* (Sorbonne).

2719. **Munson, G. E. Adjustment service of Chicago's high schools.** *Occupations*, 1939, 17, 389-394.—Most of the actual student contacts are made by individual teachers during hours set aside

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for the purpose. The system in each high school is in charge of an adjustment teacher, who collects and maintains necessary data and supplies, arranges meetings, and builds up a library of guidance literature. The emphasis is on self-guidance, based on individual differences. The service "proved its value within less than a year, and now is on the verge of further expansion as a vital contribution to the occupational adjustment of the city's youth."—*H. Schlosberg* (Brown).

2720. Nemzek, C. L. **The value of the Bernreuter personality inventory for direct and differential prediction of academic success as measured by teachers' marks.** *J. appl. Psychol.*, 1938, 22, 576-586.—In a secondary school the Bernreuter personality inventory was found to be valueless for predicting grades in mathematics, English, history and social science, and languages, or differences between grades in these subjects.—*E. Ghiselli* (Maryland).

2721. Noll, V. H. **The effect of written tests upon achievement in college classes: an experiment and a summary of evidence.** *J. educ. Res.*, 1939, 32, 345-358.—After reviewing the conflicting literature on this problem, the author reports a study made upon two classes in educational psychology; in both cases the achievement was measured by objective mid-semester and final examinations. To one class four other quizzes were given, while no other quizzes were given to the other class. A statistical study of the results "indicate unequivocally that students in a class where no quizzes of any sort were used, other than a mid-term and a final examination as here described, show consistently though not substantially higher average achievement than is shown by students in classes where occasional written quizzes were given." Bibliography of 14 titles.—*S. W. Fernberger* (Pennsylvania).

2722. Orrgård, S. **High school entrance tests and the work of the primary school.** *Publ. Swed. Soc. psychol. pedag. Inst.*, 1937, 2. Pp. 108.—This study is concerned with the relationships between primary school teachers and high school entrance examinations. It is based largely on teachers' answers to questionnaires. The entrance examinations have a large influence on primary school education. On the other hand primary school performance seems to be given little consideration by high school admission authorities.—*H. Schlosberg* (Brown).

2723. Pavan, A., & Hoppock, R. **An appraisal and abstract of available literature on the occupation of the dentist.** New York: National Occupational Conference, 1939. Pp. 11. \$0.10.—*R. R. Willoughby* (Brown).

2724. Seagoe, M. V. **Prediction of achievement in elementary algebra.** *J. appl. Psychol.*, 1938, 22, 493-503.—This study is concerned with the prediction of success in the first year of high school algebra from test scores. The New Stanford arithmetic test, Orleans algebra prognosis test, and the Terman, Kuhlmann-Anderson, and Otis intelligence tests accurately differentiate degrees of

success in elementary algebra. The groups showing different degrees of success, however, show great overlapping in their test scores. The total test picture plus personal evaluation of the student probably make for better prediction than the results of a single test alone.—*C. N. Cofer* (Brown).

2725. Seagoe, M. V. **Prediction of achievement in foreign languages.** *J. appl. Psychol.*, 1938, 22, 632-640.—General intelligence tests, the New Stanford reading test, the New Stanford arithmetic test, and the Luria-Orleans modern language prognosis test all adequately differentiate degree of success in beginning foreign languages at the junior high school level. It is questionable whether the language prognosis test is superior to a general intelligence test, but the reading test is somewhat less valid.—*E. Ghiselli* (Maryland).

2726. Segel, D. **Handbook for compiling age-grade-progress statistics.** *P. S. Off. Educ. Pamphl.*, 1938, No. 83. Pp. iii + 31.—"This handbook outlines procedures by which individual school systems, or larger units . . . can study the more general features of the school progress of pupils." Sample tables are presented and their use discussed in the collection of data on age-grade and age-grade-progress relationships. The use of age-grade-progress statistics and the use of educational and mental tests in relation to them are discussed.—*G. R. Thornton* (Nebraska).

2727. Smith, C. A. **High school training and college freshman grades.** *J. educ. Res.*, 1939, 32, 401-409.—Analysis of the grades of a large number of freshmen at the University of Wisconsin in comparison with their high school training in the different subjects indicates little superiority due to previous training where only one year has been spent in high school in subjects such as biology, physics and chemistry. On the other hand, the comparison of grades in English, foreign language, and mathematics of students with three and four years of high school work in these subjects indicates such an advantage in getting grades of C or above in the freshman year that as much training as possible before entering college is recommended.—*S. W. Fernberger* (Pennsylvania).

2728. Spiegler, S., & Hoppock, R. **An appraisal and abstract of available literature on the occupation of the bricklayer.** New York: National Occupational Conference, 1938. Pp. 8. \$0.10.—*R. R. Willoughby* (Brown).

2729. Spiegler, S., & Hoppock, R. **An appraisal and abstract of available literature on the occupation of the butcher.** New York: National Occupational Conference, 1938. Pp. 10. \$0.10.—*R. R. Willoughby* (Brown).

2730. Spiegler, S., & Hoppock, R. **An appraisal and abstract of available literature on the occupation of the sheet metal worker.** New York: National Occupational Conference, 1938. Pp. 7. \$0.10.—*R. R. Willoughby* (Brown).

2731. Spiegler, S., & Hoppock, R. **An appraisal and abstract of available literature on the occupation of the veterinarian.** New York: National Occupational Conference, 1938. Pp. 10. \$0.10.—R. R. Willoughby (Brown).

2732. Stalnaker, J. M. **Report on the scholarship tests of April 1938.** New York: College Entrance Examination Board, 1938. Pp. 15.—A report of the performance of 3177 scholarship applicants on a special test battery consisting of tests of verbal and mathematical aptitude, and objective achievement tests on social studies, contemporary affairs, general science, one special science, and a foreign language. Results are analyzed and tabulated in terms of reliability of the tests, intercorrelations between the tests, and regional, sex, and school differences.—H. Schlosberg (Brown).

2733. Stalnaker, J. M. **Thirteenth annual report on the scholastic aptitude test.** New York: College Entrance Examination Board, 1938. Pp. 15.—The 1938 form was administered to 13,133 students. In this report the data are analyzed and tabulated to show the reliability and homogeneity of the test, practice effect (slight), and group differences due to sex, age, type of school, region of the country, etc. In certain of these respects the tests are also compared with earlier ones.—H. Schlosberg (Brown).

2734. Stuit, D. B. **A study of the vocational interests of a group of teachers college freshmen.** *J. appl. Psychol.*, 1938, 22, 527-533.—The Strong vocational interest inventory was given to all freshmen enrolled in the orientation course of the Teachers College at Nebraska. The women seemed not to have teaching as a primary interest, so a further study of their interests was made. The majority of them were interested in teaching as a temporary occupation, but marriage and home activities were more desired than a permanent professional career. Observations concerning interest measurement by the Strong inventory are made.—C. N. Cofer (Brown).

2735. Torgerson, T. L. **The diagnosis and treatment of pupil maladjustment. A. Pupil adjustment inventory. B. Case study record. C. Symptoms, causes and remedies. D. Abbreviated case study record. E. Cumulative pupil adjustment record.** Milwaukee: E. M. Hale Company, 1938.—The pupil adjustment inventory offers a 4-point rating scale for 18 factors commonly associated with pupil adjustment. The case study record is intended as an aid to the teacher making a systematic study of the important factors in the life of the child which are related to his behavior. Part C is divided into the following parts: 90 causes for maladjustment based upon the 10 symptoms listed in the pupil adjustment inventory, remedial procedures for the correction of pupil maladjustment with suggestions for their administration, selected references. Part D is a folder providing for the recording of information regarding the pedagogical, physical, emotional, social factors and scores on tests of intelligence, achievement, aptitude, personality and adjustment.

The cumulative record covers all the grades, and allows for the recording of the following data: school history, study habits, physical efficiency and health status, interests and attitudes, home environment, intelligence, achievement, aptitude, personality, adjustment, and other test scores, symptoms and causes, and summary of remediation.—(Courtesy *J. educ. Res.*).

2736. Wallin, J. E. W. **Report of the division of special education and mental hygiene for the school year 1937-38, Part XII.** Wilmington, Del.: Dept. Publ. Instruc. St. Del., 1938. Pp. 318-335.—This report includes a description of the number and kinds of psychometric and audiometric tests administered, the results obtained and the recommendations made on the basis of these tests, the results of follow-up work with auditorially handicapped children, etc. Recommendations emphasize the need for an increase in special class facilities for mentally retarded children and the importance of instituting lip- and speech-reading instruction for children who have auditory defects.—M. Keller (Butler Hospital).

2737. West, M., & Bond, O. F. **A group-frequency French word list, based on the French word book of Vander Beke.** Chicago: Univ. Chicago Press, 1939. Pp. 130. \$1.00.—R. R. Willoughby (Brown).

2738. Wigforss, F. **The entrance examination in view of later school performances.** *Publ. Swed. Soc. psychol. pedag. Inst.*, 1937, 1. Pp. 131.—This is the first of a series of investigations on Swedish school examinations, carried out under the auspices of several American foundations. A large amount of data is analyzed in presenting the strength and weakness of entrance examinations and primary school certificates in predicting success in high school.—H. Schlosberg (Brown).

2739. Wilks, S. S. **General report on the mathematics attainment test, 1938.** New York: College Entrance Examination Board, 1938. Pp. 13.—One of the three forms of the mathematics attainment test was administered to each of 2745 students. Data presented show that both the short-answer items and the long problems can be scored in a reliable manner. "Results presented in tables give significant indication that the Gamma examination is somewhat superior to any other College Board examination in mathematics as far as its correlation with performance in freshman and sophomore college mathematics is concerned."—H. Schlosberg (Brown).

2740. Wilson, F. T., & Flemming, C. W. **Letter consciousness of beginners in reading.** *J. genet. Psychol.*, 1938, 53, 273-285.—Children in kindergarten and the first three grades of school were tested individually for ability to recognize words previously read, to pronounce two- and three-letter phonetic combinations, to give and recognize letter sounds, and to name letters. Analysis of response errors indicates that children in the early stages of learning

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2741. Wolf, S. J. Comparison of the Woodworth-Cady personal data sheet and Baker's "telling what I do" test. *J. genet. Psychol.*, 1938, 53, 353-363.—2 "personality tests" were administered to 50 6th grade girls who passed and 50 6th grade girls who failed the Metropolitan achievement tests in school subjects. Results on both tests indicated greater maladjustment in the failure group. The bi-serial  $r$  between school success-failure and test scores was .64 for the Woodworth-Cady and .37 for the Baker test. The 15 most differentiating items on each test are listed and compared.—D. K. Spelt (Mississippi).

[See also abstracts 2504, 2522, 2570, 2592, 2613, 2652, 2655, 2666, 2674, 2680, 2743, 2751, 2755, 2767, 2769.]

### MENTAL TESTS

2742. Bijou, S. W. The performance of normal children on the Randall's Island performance series. *J. appl. Psychol.*, 1938, 22, 186-191.—162 normals were tested on the performance series and the Kuhlmann-Binet. 84 were girls, 78 were boys, and the CA's ranged from 1 year 11 months to 5 years 9 months. The correlation of the IQ's on the two tests was  $.79 \pm .02$ .—C. N. Cofer (Brown).

2743. Embree, R. B., Jr. The use of group intelligence tests with correctional school subjects. *J. appl. Psychol.*, 1938, 22, 504-517.—Group tests were administered just after commitment to boys entering the Connecticut School for Boys. Form 2 of the Illinois general intelligence scale was used. The reliability of this test and relationships of subtests were determined on a group of 102 boys. The question of verbal handicap of foreign nationalities is considered. This test correlated with Stanford-Binet IQ's .905. Suggestions for a group test program are made.—C. N. Cofer (Brown).

2744. Hildreth, G. H. A bibliography of mental tests and rating scales. (2nd rev. ed.) New York: Psychological Corp., 1939. Pp. xxiv + 295. \$4.00.—This is a revision and extension of a bibliography published six years ago. The present list comprises 4279 titles classified under 17 major headings. Among the criteria for selection have been standardization, objectivity, historical importance, validity, and clinical usefulness. Test publishers and periodical and book references are included in the citations when possible. Subject and author indexes are appended.—M. Keller (Butler Hospital).

2745. Inglis, A. Inglis intelligence quotient values. (Rev. ed.) Yonkers-on-Hudson: World Book Co., 1938. Pp. 16. \$1.25.—These tables give the IQ or EQ, etc., directly from the mental age and chronological age expressed in years and months or total months only. Mental ages extend from 1 to 16 years, chronological ages from 3 years to 16 years and 11 months. The work of Terman and Merrill

has been followed in providing a method for correcting IQ values for chronological ages above 13-0, although their modification of the actual IQ tables for higher ages has not been followed.—M. Keller (Butler Hospital).

2746. Kuhlmann, F. A new scale of intelligence tests with some new measures. *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 47-55.—The present scale is a direct development from previous work with revisions of the Binet scale and with the Kuhlmann-Anderson group tests. Norms beginning at the 3-months level were secured on approximately 3000 Minnesota children and adults. The 89 regular tests of the scale are scored 205 times. Items are weighted according to speed and accuracy. Tests are scaled on the basis of the Heinis mental growth curve. Scores consist of mental ages, PA's ("percent of average" in place of the more variable IQ), and speed and accuracy scores for mental ages from 9 years up to the maximum adult level. The present standardization is compared with that of the 1937 revision of the Stanford-Binet scale. Statistical tables and graphs are incorporated.—M. W. Kuenzel (Children's Home, Cincinnati).

2747. McNamara, W. J., & Darley, J. G. A factor analysis of test-retest performance on attitude and adjustment tests. *J. educ. Psychol.*, 1938, 29, 652-664.—A typical sample of 100 men and 100 women was selected from a larger population who had been tested and retested over an interval of nine months with the Minnesota Scale for Survey of Opinions, Bell Adjustment Inventory, and the Minnesota Inventories of Social Attitudes (schedules which yield 13 attitude and adjustment scores). For men test and retest correlations ranged from .46 to .84 and corrected test reliability ranged from .66 to .91. Intercorrelations, factor loadings, communalities, reliabilities, uniqueness, and specificity for the 13 variables for test and retest for men and women are shown. Among the psychologically meaningful factors isolated for men were adjustment to authority, socialized interests, and economic conservatism. Some of the behavior tendencies of women were less stable than they were for men.—R. M. Bellows (Maryland).

2748. Merrill, M. A. The significance of IQ's on the revised Stanford-Binet scale. *J. educ. Psychol.*, 1938, 29, 641-651.—Whereas the lowest 2% of the original 1916 sample of 905 cases had IQ's of 73 and below on the old revision, the lowest 2% of 2,904 cases on whom the new scales were standardized had IQ's of 70 and below. In the 14-18 year group (621 cases) the revised scales gave IQ's of 68 and below for the lowest 2%. IQ's above 100 are higher, and below 90 are lower on the revised scales than on the old scale. While the middle third of the sample fell between 94 and 107 on the 1916 scale, it fell between 95 and 112 on the new scales. A group of 1,517 elementary school children who had been tested with both the old and new scales gave test-retest data which yielded correlations from .64 to .80. Large gains and losses were expected

since the children retested were selected for retesting because of discrepancy between test and school performance. Mean interval between testings was 4½ years. Definite classifications, as normal or feeble-minded, should not be made on the basis of test scores alone.—R. M. Bellows (Maryland).

2749. Mitrano, A. J. **The clinical interpretation of psychometric data.** *Proc. Amer. Ass. ment. Def.*, 1938, 43, No. 1, 156-160.—Such topics are discussed as adequate standardization of tests, effect of retests, significance of test variability, equivalence of test standardizations, and use of critical scores and of correlation coefficients.—M. W. Kuenzel (Children's Home, Cincinnati).

2750. Saum, A. L. **The relative significance of time as a factor in tests of ability at the college level.** *J. appl. Psychol.*, 1938, 22, 192-210.—For the experimental group of this study, 193 students took the Ohio State University psychological test, forms 13, 15, and 16, under "work limit" conditions. A time limit test (form 14) also was taken. The correlation of scores on these two tests for the whole group was .742. Absolute scores may increase with greater time allowance, but relative scores remain about the same. It is concluded that perseverance is more demanded by college work than is speed.—C. N. Cofer (Brown).

2751. Traxler, A. E. **A study of the California test of mental maturity, advanced battery.** *J. educ. Res.*, 1939, 32, 329-335.—A study of the results from 95 pupils in grades VIII and IX who were given the California test of mental maturity and also the American Council on Education psychological examination, the Iowa silent reading test, and the Traxler silent reading test. They had previously been given the Kuhlmann-Anderson intelligence test. From a statistical study of the relationship of the language and non-language parts of the California test and of this test with the other tests given, the author concludes that the data "are favorable to the reliability, validity and utility of the California test."—S. W. Fernberger (Pennsylvania).

[See also abstracts 2671, 2732, 2733, 2739.]

#### CHILDHOOD AND ADOLESCENCE

2752. Brown, F. J. **The sociology of childhood.** New York: Prentice-Hall, 1939. Pp. xxii + 498. \$2.25.—The author studies childhood in terms of the social processes involved in the "typical social interaction" in the life of the "normal" child. Social interaction is discussed as "the total social process," of which the detailed processes are "passive adaptation, conflict, co-operation, and active adaptation." In Part I these processes are related to the life of the child in general. In Parts II to VII (inclusive) the operation of the processes in the specific situations of the family, the play group, the school, the leisure time agencies, the state, and the church are treated. The introductory chapter surveys some aspects of "the child of the past and

present"; the concluding chapter presents some considerations in developing a program for the "child of tomorrow." The book was written primarily as a textbook for courses in educational sociology. There are questions for discussion at the end of each chapter and a bibliography of "desirable reading." In an appendix selected magazines for parents and children are briefly described and "organizations conducting research in child development" and "organizations serving children and young people" are listed.—D. L. Glick (Brown).

2753. Brown, P. A. **Responses of blind and seeing adolescents to an introversion-extraversion questionnaire.** *J. Psychol.*, 1938, 6, 137-147.—The Neymann-Kohlstedt diagnostic test for introversion-extraversion and the Clark revision of the Thurstone personality schedule were administered to 359 sighted high school seniors and 218 blind adolescents between the ages of 16 and 22. While the comparison of responses to individual items revealed significant differences between blind and sighted, qualitative consideration of the items failed to give a typically found differentiating syndrome. When blind and sighted males alone were considered, the former presented a somewhat more "extraverted" appearance. Significant sex differences in response to individual items were more numerous among the blind than among the sighted.—E. D. Hunt (Brown).

2754. Cowan, E. A. **Cowan adolescent personality schedule (revision no. 2).** Wichita, Kan.: Wichita Child Res. Lab., 1938. \$2.00 per 25.—Standardized on approximately 1200 children 12-18 years of age, this schedule attempts to measure maladjustment in the following categories: fears, family emotional maladjustments, maladjustment to family authority, inferiorities, maladjustment to non-family authority, maladjustment to responsibility, escapes, neurotic symptoms, compensations. Percentage maladjustment in each of these 9 fields may be compared with a normal profile. Various combinations of "peaks" and "valleys" in the individual profile (i.e. deviations of 6 or more percentage points above or below the "norm line") are given special interpretations.—M. Keller (Butler Hospital).

2755. Davis, E. A., & McGinnis, E. **Parent education.** *Univ. Minn. Child Welf. Monogr. Ser.*, 1939, No. 17. Pp. x + 153. \$2.50.—Part I. The effect of attending child study groups upon parental attitudes toward children's behavior: By controlling the age and sex of the child to be considered and the cultural background of the rater, an attempt was made to determine the attitudes of mothers attending study groups toward the 50 problems rated by Wickman's teachers and clinicians. Nearly 5000 forms from a fairly representative sampling gave evidence that trained leaders succeeded in imparting many established principles of child psychology. Part II. The organization and development of a parent education program: The procedure of organizing a group for child study is discussed, with consideration of such details as sponsorship, frequency and time of meetings, leaders, etc. For a

successful program, records must be kept, and the leaders must be satisfactory to all, adaptable as well as trained. They must be familiar with the probable cultural level of the group, and offer subject matter dealing with different stages of child development. Morning groups, small libraries, and free correspondence courses were recommended.—*R. Bush* (River-side, R. I.).

2756. Dunham, E. C. **The appraisal of the newborn infant.** *U. S. Child. Bur. Publ.*, 1938, No. 242. Pp. 24.—Careful evaluation of the neonate is important for the child's well-being. This manual enumerates and describes the nature of desirable examination of the infant during the first month.—*C. M. Louttit* (Indiana).

2757. Farnsworth, P. R. **Ratings in music, art, and abnormality, in the first four grades.** *J. Psychol.*, 1938, 6, 89-94.—The data obtained from the ratings listed above gave no support to the contention that children rated high in the esthetic abilities are more abnormal, sinistral, or defective in speech. Those rated as high in music and art ability were found to be significantly better adjusted, and there was even a slight tendency for them to be more right-handed and to have fewer speech troubles. These ratings were found to hold up reasonably well over the period of a year.—*E. D. Hunt* (Brown).

2758. Fjeld, H. A., & Maxfield, K. E. **Why a program of research on preschool blind children?** *J. Psychol.*, 1938, 6, 43-68.—The authors conclude their survey of the need for research on preschool blind children with a brief description of the research now in progress at the Arthur Sunshine Home and Nursery School for the Blind. This work includes studies on language development, vocabulary, the social maturity of the preschool blind child, the progress of blind infants as shown by a daily developmental record, and mannerisms shown.—*E. D. Hunt* (Brown).

2759. Garvey, C. R. **The activity of young children during sleep.** *Univ. Minn. Child Welf. Monogr. Ser.*, 1939, No. 18. Pp. x + 102. \$2.00.—Records of the sleep of 22 children aged 2 to 4 were kept by parents for a total of 3339 nights. Each child slept in a specially designed crib to which was attached a Johnson kinetograph. Movements were classified in 5-minute intervals, "active" if a shift of 1 millimeter occurred in the record; otherwise "passive." Records were treated two ways, showing the temporal distribution of active intervals and the mean length of rest periods. Results are presented graphically and statistically. Some findings are as follows: The mean rest period was 7.25 minutes, with large individual differences. Activity was periodic or rhythmic. Children move about twice as often as adults and take twice as long to go to sleep. Sleep before midnight is no quieter than after. More activity follows an afternoon nap. Temperature, unless extreme, has little effect. 3-year-olds are more active than children of 2 or 4, and girls slightly more than boys. Strenuous exercise

after supper, ultra-violet ray treatment, and bed-wetting tend to cause quieter sleep. The appendix contains descriptions of each child and his home environment, a summary of statistical data, and a bibliography.—*M. P. Montgomery* (Faribault, Minn.).

2760. Halverson, H. M. **Infant sucking and tensional behavior.** *J. genet. Psychol.*, 1938, 53, 365-430.—Using 10 male infants 1-43 weeks old, in a series of experimentally varied feeding situations, records of sucking pressure and gripping pressure were made, with observations on general activity in postural changes, tension, emotional behavior, and penile tumescence (T) and detumescence (D). The indicated order of preference in sucking was: breast, easy nipple, difficult nipple, dry nipple. Tension of manual flexor muscles and strength of sucking varied directly, both generally decreasing during the feeding. Unhampered and hampered feeding elicited characteristically different behavior, with greater tension, variability in pressures, and restlessness when feeding was disturbed. When T occurred, it was an accompaniment of hampered sucking and of "restlessness, frequent excitement and marked muscular tension." Physiological and behavioral evidence did not support psychoanalytic interpretations of T, but pointed to marked abdominal pressure as chiefly responsible for its occurrence. Sample records are reproduced and various aspects of the results discussed.—*D. K. Spelt* (Mississippi).

2761. Hunter, A. D. **A comparison of introverted and extroverted high school speakers.** *Speech Monogr.*, 1935, 2, 50-53.—*C. V. Hudgins* (Clarke School).

2762. Lacey, J. I., & Dallenbach, K. M. **Minor studies from the Psychological Laboratory of Cornell University. LXXXVIII. Acquisition by children of the cause-effect relationship.** *Amer. J. Psychol.*, 1939, 52, 103-110.—160 children between 5-0 and 8-12 years were required to demonstrate their knowledge of the cause-effect relationship. If they did not know the significance of the relationship, they were taught by examples. The 10 stimulus words were selected from Thorndike's list. The results indicate that children in the 6-7 to 6-12 age group have a 50% chance of learning the cause-effect relationship. When learned at all, the relationship is usually learned quickly. Of the children who failed to learn the relationship, some failed completely, while some failed on only part of the words. Various reasons for the instability in the replies of this group were considered. Trial-and-error theories of learning are considered inadequate to explain the results obtained.—*D. E. Johannsen* (Skidmore).

2763. Langer, M. F. **A foster home agency experiments with a nursery school.** *Family*, 1938, 19, 228-233.—*R. R. Willoughby* (Brown).

2764. Lyon, R. A. **[Reflexes of the new-born.]** *Schweiz. med. Wschr.*, 1937, 67, 689-694.—*R. R. Willoughby* (Brown).

2765. Macfarlane, J. W. Some findings from a ten-year guidance research program. *Progr. Educ.*, 1938, 15, 529-535.—R. R. Willoughby (Brown).

2766. Mauco, G. *La psychologie de l'enfant dans ses rapports avec la psychologie de l'inconscient*. (Child psychology in relation to the psychology of the unconscious.) Paris: Denoël & Steele, 1938. Pp. 148. 20 fr.—G. Goldman (Sorbonne).

2767. Partridge, J. M. Truancy. *J. ment. Sci.*, 1939, 85, 45-81.—50 cases of truancy, 37 boys and 13 girls, ages 5 to 13, were studied. IQ's were approximately normally distributed, with slight skewness favoring the lower levels. Signs of physical disease were observed in only 3 cases. Sheer failure of discipline accounted for the truancy in 5 cases; complex factors including hysterical, desiderative, rebellious, and psychoneurotic behavior seemed to contribute in the remainder. In 9 cases the children were truants from home only, in 22 from school only, and in 19 from home and school. Regardless of the nature of the truancy, home environment seemed to be a chief determining cause, while dislike of school appeared relatively insignificant.—D. G. Ryans (William Woods College).

2768. Rigg, M. G. A superior child who would not talk. *Child Develpm.*, 1938, 9, 361-362.—A case of early vocabulary deficiency accompanying superior intelligence is described. From the data the author deduces that extreme vocabulary deficiency at two years need not indicate low intelligence or a relative vocabulary deficiency in later years.—C. N. Cofer (Brown).

2769. Rigg, M. G. The international kindergarten union word list compared with eight spoken vocabularies. *Child Develpm.*, 1938, 9, 363-364.—A comparison of the vocabularies of eight mentally superior children, two to four years of age, with the international kindergarten union list is made.—C. N. Cofer (Brown).

2770. Shirley, M. Common content in the speech of preschool children. *Child Develpm.*, 1938, 9, 333-346.—Speech responses of children two to five years of age who visited a health center were studied for common concepts or words. Data were available for intervals of six months in this age range, different children being the subjects for each interval. 50 different word concepts occurred frequently; one third of them referred to the family. Some sex differences were noted. The 11 most frequently used word concepts seemed to carry an emotional tone. Many references to the family were expressions of insecurity, although some non-emotional family references were observed. Data are also presented with respect to the child's verbalizations concerning "crying," "make-believe play," "names," and to common responses as expressions of needs and culture.—C. N. Cofer (Brown).

2771. Shirley, M. Development of immature babies during their first two years. *Child Develpm.*, 1938, 9, 347-360.—215 developmental tests were given to 63 babies who weighed less than five pounds

at birth. Those who weighed less than four pounds were retarded by a month or more through the first eighteen months, whereas those weighing between four and five pounds at birth overtook the normal group in nine months. Premature babies were more backward in manipulative development than in intellectual grasp and social responsiveness. Some of the group showed acceleration and some consistent retardation by the age of nine months; for the latter the prediction of feeble-mindedness was felt to be warranted. Premature babies manifested more "nervous" mannerisms than full-term babies. The various conditions concomitant with premature birth predetermine for the infant a somewhat unusual environment that may foster the development of nervous habits.—C. N. Cofer (Brown).

2772. Várkonyi, H. *A gyermekkor lélektana*. I. *Az első hat életev*. (Psychology of childhood. I. The first six years.) Szeged: 1938. Pp. 244.—The book deals with the object, aim, and relationships of child psychology; growth processes; the first year (motility, sensations, perceptions, habits, intelligence, affects); the second to the sixth year (motility, memory, imagination, stories, drawing, interests, speech, intelligence, religion, personality); the 3-year-old; and the 6-year-old. There are a bibliography and indexes.—P. Ranschburg (Budapest).

2773. Vernon, M. D. Characteristic motivation in the activities of school-girls. *Brit. J. Psychol.*, 1938, 29, 121-143; 232-245.—From the answers to questions given by three groups of girls of different ages and social settings, was demonstrated the existence of drives toward: social conformity, humanitarianism, activity, independence, security, superiority, dominance, display, and pleasure or variety. The frequency of distribution of social conformity, activity, and pleasure was roughly the same for the three groups, but the other drives varied in frequency between groups, and the particular interests and occupational wishes toward which the drives directed individuals also varied between groups. Moreover, any particular interest or occupational wish might be produced in different individuals, in different social groups, by very different drives. Hence the occurrence of any such interest or wish has no significance unless considered in conjunction with the basic drives of the individual (and also probably his age and emotional maturity), and with his social background.—M. D. Vernon (Cambridge, England).

2774. Zeligs, R. Tracing racial attitudes through adolescence. *Sociol. soc. Res.*, 1938, 23, 45-54.—Racial attitudes of children show a slight increase in tolerance from early to late adolescence, with a tendency toward the feeling that their own and similar races are superior.—(Courtesy *Child Develpm. Abstr.*.)

[See also abstracts 2350, 2351, 2352, 2368, 2386, 2395, 2416, 2451, 2462, 2487, 2497, 2502, 2511, 2558, 2568, 2579, 2621, 2665, 2689, 2710.]

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